

DTIC FILE COPY

INSTALLATION RESTORATION PROGRAM

REMEDIAL INVESTIGATION REPORT
SITE 1, FIRE TRAINING AREA

VOLK FIELD AIR NATIONAL GUARD BASE,
CAMP DOUGLAS, WI

JULY 1990

DISTRIBUTION STATEMENT A

Approved for public release;
distribution Unlimited

VOLUME II

AD-A231 862



FILE

DTIC

S

FEB 20 1991

D

D

6 SEP 1991
RECEIVED

ENGINEERING-SCIENCE

ES

HAZWRAP SUPPORT CONTRACTOR OFFICE

Oak Ridge, Tennessee 37831

Operated by MARTIN MARIETTA ENERGY SYSTEMS, INC.

For the U.S. DEPARTMENT OF ENERGY under contract DE-AC05-84OR21400

91 2 11 100

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

1. REPORT NUMBER: This report is the final report of a project of the Department of Defense, including the final review and recommendations. It is the property of the Department of Defense and is loaned to you. It and its contents are not to be distributed outside your agency without the express written permission of the Department of Defense. This report is the property of the Department of Defense and is loaned to you. It and its contents are not to be distributed outside your agency without the express written permission of the Department of Defense.

1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE July 1990		3. REPORT TYPE AND DATES COVERED Final Remedial Investigation Report	
4. TITLE AND SUBTITLE Remedial Investigation Report Site 1, Fire Training Area Volk Field Air National Guard Base Camp Douglas, WI Volume I Volume II-Appendices				5. FUNDING NUMBERS	
6. AUTHOR(S) N/A					
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Engineering-Science, INC. 57 Executive Park South, Suite 590 Atlanta, Georgia 30329				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) Hazardous Waste Remedial Actions Program Oak Ridge, TN Air National Guard Bureau Andrews Air Force Base, Maryland 20331				10. SPONSORING/MONITORING AGENCY REPORT NUMBER	
11. SUPPLEMENTARY NOTES					
12a. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution is unlimited				12b. DISTRIBUTION CODE	
13. ABSTRACT (Maximum 200 words) The report covers the Remedial Investigation conducted on Site 1, Fire Training Area at Volk Field Air National Guard Base. The remedial work is described and the testing conducted after remediation to insure all contamination has been removed. The study was conducted under the Air National Guard's Installation Restoration Program.					
14. SUBJECT TERMS Remedial Investigation Report Installation Restoration Program Wisconsin Air National Guard				15. NUMBER OF PAGES	
				16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT		

**BEST
AVAILABLE COPY**

INSTALLATION RESTORATION PROGRAM

**REMEDIAL INVESTIGATION REPORT
SITE 1, FIRE TRAINING AREA**

**VOLK FIELD AIR NATIONAL GUARD BASE
Camp Douglas, Wisconsin
VOLUME II**

FILE

**Submitted By
HAZARDOUS WASTE REMEDIAL ACTIONS PROGRAM
MARTIN MARIETTA ENERGY SYSTEMS
Oak Ridge, Tennessee**



**Submitted To
NATIONAL GUARD BUREAU
ANGSC/DER
Andrews AFB, Maryland**

Accession For	
NTIS	CR121
DTIC	1AB
Unannounced	12
Justification	
By	
Distribution /	
Availability Codes	
Dist	Avail and/or Special
A-1	

July 1990

**Prepared By
ENGINEERING-SCIENCE, INC.
57 Executive Park South, Suite 590
Atlanta, Georgia 30329**

**ABBREVIATED TABLE OF CONTENTS
REMEDIAL INVESTIGATION REPORT
SITE 1, FIRE TRAINING AREA
VOLK FIELD ANGB
CAMP DOUGLAS, WI**

VOLUME I

EXECUTIVE SUMMARY

SECTION 1	INTRODUCTION
SECTION 2	PHYSICAL CHARACTERISTICS OF STUDY AREA
SECTION 3	FIELD INVESTIGATION PROGRAM
SECTION 4	INVESTIGATION RESULTS
SECTION 5	REGULATORY SIGNIFICANCE OF FINDINGS
SECTION 6	PUBLIC HEALTH EVALUATION
SECTION 7	RECOMMENDATIONS
SECTION 8	REFERENCES
SECTION 9	SITE MAP OF VOLK FIELD ANGB
APPENDIX A	GLOSSARY OF TERMS
APPENDIX B	SOIL BORING AND MONITORING WELL LOGS
APPENDIX C	AQUIFER TESTING DATA
APPENDIX D	SOIL GAS SURVEY DATA

VOLUME II

APPENDIX E	ANALYTICAL DATA
APPENDIX F	QA/QC REPORT

Volume II of this report contains data tables and data notes of information gathered from the sampling of soils and ground water. Hydrocarbons and aromatic volatile organics are among the contaminants listed.

APPENDIX E
ANALYTICAL DATA

APPENDIX E

ANALYTICAL DATA

On the following pages are indices for analytical data for the Remedial Investigation conducted at Volk Field ANGB, Wisconsin. All references to "E" are located on the pages following the index (Appendix E of the Remedial Investigation).

This appendix is divided into three sections. Section 1 contains the Analytical Data on pages E-1 through E-495; Section 2 contains the Sample Preparation Data¹ (Holding Times) on pages E-496 through E-526; and Section 3 contains the Chain of Custody Records on pages E-527 through E-561.

¹ Holding times for Base/Neutral Acid Extractables are found in the Analytical Data, Section 1. The laboratory number for Base/Neutral Acid Extractables is different than other laboratory numbers. The number is a 6 digit call number instead of 8 digits (e.g., laboratory number 88010190 is 880190 for Base/Neutral Acid Extractables).

APPENDIX E
INDEX OF ANALYTICAL DATA

ES Number	Lab Number	Purgeable Halocarbons	Aromatic Volatile Organics	Petroleum Hydrocarbons	PCBs	Base/Neutral Acid Extractables	23 Priority Pollutants Metals	Lead Only	Total Dissolved Solids
Site 1 (Fire Training Area)									
VF1, B-1, SS-1, 0.5'	88010190	E-1, E-6	E-50, E-55	E-99	E-124	E-156-160		E-463	
VF1, B-1, SS-2, 3.5'	88010191	E-1, E-7	E-50, E-56	E-99	E-124	E-161-165		E-463	
VF1, B-1, SS-3, 8.5'	88010192	E-2, E-8	E-51, E-57	E-100	E-125	E-167-172		E-464	
VF1, B-2, SS-1, 0.5'	88010193	E-2	E-51	E-100	E-125	E-173-178		E-464	
VF1, B-2, SS-2, 3.5'	88010194	E-2	E-51	E-100	E-125	E-179-184		E-464	
VF1, B-2, SS-3, 8.5'	88010195	E-2	E-51	E-100	E-125	E-185-190		E-464	
VF1, B-3, SS-1, 1.0'	88010196	E-2	E-51	E-100	E-125	E-191-196		E-464	
VF1, B-3, SS-2, 3.5'	88010197	E-2	E-51	E-100	E-125	E-197-202		E-464	
VF1, B-3, SS-3, 8.5'	88010186	E-1	E-50	E-99	E-124	E-203-208		E-463	
VF1, B-4, SS-1, 0.5'	88010189	E-1, E-5	E-50, E-54	E-99	E-124	E-209-214		E-463	
VF1, B-4, SS-2, 3.5'	88010198	E-3	E-52	E-101	E-126	E-215-220		E-465	
VF1, B-4, SS-3, 8.5'	88010199	E-3	E-52, E-58	E-101	E-126	E-221-226		E-465	
VF1, B-5, SS-1, 0'	88010209	E-10	E-60	E-121	E-129	E-227-231		E-480	
VF1, B-5, SS-2, 3.5'	88010210	E-11	E-61	E-122	E-130	E-232-236		E-481	
VF1, B-5, SS-3, 10.0'	88010211	E-11	E-61, E-64	E-122	E-130	E-237-241		E-481	
VF1, B-6, SS-1, 0'	88010212	E-11	E-61, E-65	E-122	E-130	E-242-246		E-481	
VF1, B-6, SS-2, 3.5'	88010205	E-10, E-12	E-60, E-62	E-121	E-129	E-247-251		E-480	
VF1, B-6, SS-3, 8.5'	88010206	E-10, E-13	E-60, E-63	E-121	E-129	E-252-256		E-480	
VF1, B-7, SS-1, 0'	88010207	E-10	E-60	E-121	E-129	E-257-261		E-480	
VF1, B-7, SS-2, 3.5'	88010208	E-10	E-60	E-121	E-129	E-262-266		E-480	
VF1, B-7, SS-3, 8.5'	88010204	E-10	E-60	E-121	E-129	E-267-271		E-480	
VF1, B-8, SS-1, 0'	88010217	E-15	E-67	E-108	E-133	E-272-276		E-468	
VF1, B-8, SS-2, 3.5'	88010218	E-15	E-67	E-108	E-133	E-277-281		E-468	
VF1, B-8, SS-3, 8.5'	88010219	E-15	E-67	E-108	E-133	E-282-286		E-468	
VF1, B-9, SS-1, 0'	88010220	E-16	E-68	E-109	E-134	E-287-291		E-469	
VF1, B-9, SS-2, 3.5'	88010215	E-15	E-67	E-108	E-133	E-292-296		E-468	
VF1, B-9, SS-3, 8.5'	88010216	E-15	E-67	E-108	E-133	E-297-301		E-468	
VF1, B-10, SS-1, 0.5'	88020289	E-18	E-70	E-111	E-137	E-302-306		E-472	
VF1, B-10, SS-2, 3.5'	88020291	E-18	E-70	E-111	E-137	E-312-316		E-472	
VF1, B-10, SS-3, 8.5'	88020292	E-18	E-70	E-111	E-137	E-317-321		E-472	
VF1, B-11, SS-1, 1.0'	88020293	E-18	E-70	E-111	E-137	E-322-326		E-472	
VF1, B-11, SS-2, 3.5'	88020294	E-18	E-70	E-111	E-137	E-327-331		E-472	
VF1, B-11, SS-3, 8.5'	88020295	E-19, E-20	E-71, E-72	E-112	E-138	E-332-336		E-473	
VF1, B-12, SS-1, 1.0'	88020296	E-19	E-71	E-112	E-138	E-337-341		E-473	
VF1, B-12, SS-2, 3.5'	88020297	E-19	E-71	E-112	E-138	E-342-346		E-473	
VF1, B-12, SS-3, 8.5'	88020298	E-19	E-71	E-112	E-138	E-347-351		E-473	
VF1, B-13, SS-1, 1.5'	88020299	E-19	E-71	E-112	E-138	E-352-356		E-473	
VF1, B-13, SS-2, 3.5'	88020375	E-22	E-74	E-114	E-141	E-357-361		E-476	
VF1, B-13, SS-3, 8.5'	88020376	E-22	E-74	E-114	E-141	E-362-366		E-476	
VF1, B-14, SS-1, 1.0'	88020377	E-23	E-75	E-115	E-142	E-367-372		E-477	
VF1, B-14, SS-2, 3.5'	88020378	E-23	E-75	E-115	E-142	E-373-377		E-477	
VF1, B-14, SS-3, 8.5'	88020371	E-22	E-74	E-114	E-141	E-378-382		E-476	

APPENDIX E--Continued
INDEX OF ANALYTICAL DATA

ES Number	Lab Number	Purgeable Halocarbons	Aromatic Volatile Organics	Petroleum Hydrocarbons	PCBs	Base/Neutral Acid Extractables	23 Priority Pollutants Metals	Lead Only	Total Dissolved Solids
<u>Site 1 (Fire Training Area) (Continued)</u>									
VP1, B-15, SS-1, 0.5'	88020372	E-22	E-74	E-114	E-141	E-383-387		E-476	
VP1, B-15, SS-2, 3.5'	88020373	E-22	E-74	E-114	E-141	E-388-392		E-476	
VP1, B-15, SS-3, 8.5'	88020374	E-22	E-74	E-114	E-141	E-393-397		E-476	
VP1, B-21, SS-1, 1.0'	88010187	E-1	E-50	E-99	E-124	E-398-403		E-463	
VP1, B-22, SS-1, 0.5'	88010188	E-1, E-4	E-50, E-53	E-99	E-124	E-404-409		E-463	
VP1, B-26, SS-1, 0'	88010214	E-15	E-67	E-108	E-133	E-410-414		E-468	
VP1, B-27, SS-1, 0.5'	88020290	E-18	E-70	E-111	E-137	E-407-414		E-472	
VP1, B-28, SS-1, 1.5'	88020300	E-19	E-71	E-112	E-138	E-415-419		E-473	
VP, ET-1, GW1, ES	88030567	E-39	E-83	E-119	E-147	E-421-425		E-490	E-119
VP, ET-2, GW1, ES	88030568	E-39	E-83	E-119	E-147	E-421-425		E-490	E-119
VP, ET-3, GW1, ES	88030569	E-39, E-41	E-83, E-85	E-119	E-147	E-426-429		E-490	E-119
VP, ET-4, GW1, ES	88030573	E-29, E-31	E-87, E-89	E-106	E-145	E-430-433		E-493	E-106
VP, ET-5, GW1, ES	88030572	E-29, E-30	E-87, E-88	E-106	E-145	E-430-433		E-493	E-106
VP, ET-6, GW1, ES	88030576	E-29	E-87	E-106	E-145	E-434-438		E-493	E-106
VP, ET-7, GW1, ES	88030575	E-29, E-32	E-87, E-90	E-106	E-145	E-439-442		E-493	E-106
VP, 1-W1, GW1, ES	88030540	E-26	E-77, E-81	E-103	E-149	E-443-446		E-487	E-103
VP, 1-W2, GW1, ES	88030566	E-39, E-40	E-83, E-84	E-119	E-147	E-447-450		E-490	E-119
VP, 1-W3, GW1, ES	88030554	E-34, E-37	E-92, E-95	E-117	E-151	E-451-454		E-484	E-117
VP, 1-W4, GW1, ES	88030537	E-26	E-77, E-79	E-103	E-149	E-455-458		E-487	E-103
VP, 1-W5, GW1, ES	88030538	E-26	E-77, E-80	E-103	E-149	E-459-462		E-487	E-103
<u>Tripp Blanks</u>									
VP, 11-W3, GW1, ES	88030542	E-27	E-78						
VP, 11-W4, GW1, ES	88030563	E-36	E-94						
VP, 11-W5, GW1, ES	88030570	E-39	E-83						
VP, 11-W6, GW1, ES	88030577	E-29	E-87						
<u>Bailer Rinsates</u>									
VP, 12-W2, GW1, ES	88030562	E-35	E-93	E-123a			E-484a	E-490	E-123a
VP, 12-W3, GW1, ES	88030565	E-39	E-83	E-119	E-147	E-447-450			E-119
<u>Field Blank</u>									
VP, 13-W1, GW1, ES	88030574	E-29	E-87	E-106		E-439-442	E-493		E-106
<u>Production Wells</u>									
VP, 950, GW-1, ES	88071335	E-43, E-46	E-97						
Trip Blank	88071336	E-43, E-47	E-97						
VP, 934, GW-1, ES	88071337	E-43, E-48	E-97						
VP, 916, GW-1, ES	88071338	E-43, E-49	E-97						

APPENDIX E--Continued
INDEX OF SAMPLE PREPARATION DATA

Lab Number	ES Number	Purgeable Halocarbons	Aromatic Volatile Organics	Petroleum Hydrocarbons	PCBs	Base/Neutral Acid Extractables*	Metals	Total Dissolved Solids	Moisture
88010186	VF1, B-3, SS-3 8.5'	E-498	E-498	E-498	E-498	E-498	E-502	E-496	E-496
88010187	VF1, B-21, SS-1 1.0'	E-498	E-498	E-498	E-498	E-498	E-502	E-496	E-496
88010188	VF1, B-22, SS-1 0.5'	E-498	E-498	E-498	E-498	E-498	E-502	E-496	E-496
88010189	VF1, B-4, SS-1 0.5'	E-498	E-498	E-498	E-498	E-498	E-502	E-496	E-496
88010190	VF1, B-1, SS-1 0.5'	E-498	E-498	E-498	E-498	E-498	E-502	E-496	E-496
88010191	VF1, B-1, SS-2 3.5'	E-498	E-498	E-498	E-498	E-498	E-502	E-496	E-496
88010192	VF1, B-1, SS-3 8.5'	E-499	E-499	E-499	E-499	E-499	E-502	E-496	E-496
88010193	VF1, B-2, SS-1 0.5'	E-499	E-499	E-499	E-499	E-499	E-502	E-496	E-496
88010194	VF1, B-2, SS-2 3.5'	E-499	E-499	E-499	E-499	E-499	E-502	E-496	E-496
88010195	VF1, B-2, SS-3 8.5'	E-499	E-499	E-499	E-499	E-499	E-502	E-496	E-496
88010196	VF1, B-3, SS-1 1.0'	E-499	E-499	E-499	E-499	E-499	E-502	E-496	E-496
88010197	VF1, B-3, SS-2 3.5'	E-499	E-499	E-499	E-499	E-499	E-502	E-496	E-496
88010198	VF1, B-4, SS-2 3.5'	E-499	E-499	E-499	E-499	E-499	E-502	E-496	E-496
88010199	VF1, B-4, SS-3 8.5'	E-499	E-499	E-499	E-499	E-499	E-502	E-496	E-496
88010204	VF1, B-7, SS-3 8.5'	E-503	E-503	E-503	E-503	E-503	E-505	E-496	E-496
88010205	VF1, B-6, SS-2 3.5'	E-503	E-503	E-503	E-503	E-503	E-505	E-496	E-496
88010206	VF1, B-6, SS-3 8.5'	E-503	E-503	E-503	E-503	E-503	E-505	E-496	E-496
88010207	VF1, B-7, SS-1 0'	E-503	E-503	E-503	E-503	E-503	E-505	E-496	E-496
88010208	VF1, B-7, SS-2 3.5'	E-503	E-503	E-503	E-503	E-503	E-505	E-496	E-496
88010209	VF1, B-5, SS-1 0'	E-503	E-503	E-503	E-503	E-503	E-505	E-496	E-496
88010210	VF1, B-5, SS-2 3.5'	E-504	E-504	E-504	E-504	E-504	E-505	E-496	E-496
88010211	VF1, B-5, SS-3 10.0'	E-504	E-504	E-504	E-504	E-504	E-505	E-496	E-496
88010212	VF1, B-6, SS-1 0'	E-504	E-504	E-504	E-504	E-504	E-505	E-496	E-496
88010214	VF1, B-26, SS-1 0'	E-506	E-506	E-506	E-506	E-506	E-508	E-497	E-497
88010215	VF1, B-9, SS-2 3.5'	E-506	E-506	E-506	E-506	E-506	E-508	E-497	E-497
88010216	VF1, B-9, SS-3 8.5'	E-506	E-506	E-506	E-506	E-506	E-508	E-497	E-497
88010217	VF1, B-8, SS-1 0'	E-506	E-506	E-506	E-506	E-506	E-508	E-496	E-496
88010218	VF1, B-8, SS-2 3.5'	E-506	E-506	E-506	E-506	E-506	E-508	E-496	E-496
88010219	VF1, B-8, SS-3 8.5'	E-506	E-506	E-506	E-506	E-506	E-508	E-496	E-496
88010220	VF1, B-9, SS-1 0'	E-507	E-507	E-507	E-507	E-507	E-511	E-496	E-496
88020289	VF1, B-10, SS-1 0.5'	E-509	E-509	E-509	E-509	E-509	E-511	E-496	E-496
88020290	VF1, B-27, SS-1 0.5'	E-509	E-509	E-509	E-509	E-509	E-511	E-496	E-496
88020291	VF1, B-10, SS-2 3.5'	E-509	E-509	E-509	E-509	E-509	E-511	E-496	E-496
88020292	VF1, B-10, SS-3 8.5'	E-509	E-509	E-509	E-509	E-509	E-511	E-496	E-496
88020293	VF1, B-11, SS-1 1.0'	E-509	E-509	E-509	E-509	E-509	E-511	E-496	E-496
88020294	VF1, B-11, SS-2 3.5'	E-509	E-509	E-509	E-509	E-509	E-511	E-496	E-496
88020295	VF1, B-11, SS-3 8.5'	E-510	E-510	E-510	E-510	E-510	E-511	E-496	E-496
88020296	VF1, B-12, SS-1 1.0'	E-510	E-510	E-510	E-510	E-510	E-511	E-496	E-496
88020297	VF1, B-12, SS-2 3.5'	E-510	E-510	E-510	E-510	E-510	E-511	E-496	E-496
88020298	VF1, B-12, SS-3 8.5'	E-510	E-510	E-510	E-510	E-510	E-511	E-496	E-496
88020299	VF1, B-13, SS-1 1.5'	E-510	E-510	E-510	E-510	E-510	E-511	E-496	E-496
88020300	VF1, B-28, SS-1 1.5'	E-510	E-510	E-510	E-510	E-510	E-511	E-496	E-496
88020371	VF1, B-14, SS-3 8.5'	E-512	E-512	E-512	E-512	E-512	E-514	E-496	E-496
88020372	VF1, B-15, SS-1 0.5'	E-512	E-512	E-512	E-512	E-512	E-514	E-496	E-496
88020373	VF1, B-15, SS-2 3.5'	E-512	E-512	E-512	E-512	E-512	E-514	E-496	E-496

APPENDIX E--Continued
INDEX OF SAMPLE PREPARATION DATA

Lab Number	ES Number	Purgeable Halocarbons	Aromatic Volatile Organics	Petroleum Hydrocarbons	PCBs	Base/Neutral Acid Extractables*	Metals	Total Dissolved Solids	% Moisture
88020374	VF1, B-15, SS-3 8.5'	E-512	E-512	E-512	E-512		E-514		E-496
88020375	VF1, B-13, SS-2 3.5'	E-512	E-512	E-512	E-512		E-514		E-496
88020376	VF1, B-13, SS-3 8.5'	E-512	E-512	E-512	E-512		E-514		E-496
88020377	VF1, B-14, SS-1 1.0'	E-513	E-513	E-513	E-513		E-514		E-496
88020378	VF1, B-14, SS-2 3.5'	E-513	E-513	E-513	E-513		E-514		E-496
88030537	VF, 1-W4, GM1, ES	E-516	E-516	E-516	E-516		E-518	E-516	
88030538	VF, 1-W5, GM1, ES	E-516	E-516	E-516	E-516		E-518	E-516	
88030540	VF, 1-W1, GM1, ES	E-516	E-516	E-516	E-516		E-518	E-516	
88030542	VF, 11-W3, GM1, ES	E-517	E-517	E-517	E-517				
88030554	VF, 1-W3, GM1, ES	E-519	E-519	E-519	E-519		E-522	E-519	
88030555	VF, 10-W1, GM1, ES	E-519	E-519	E-519	E-519		E-522	E-519	
88030562	VF, 12-W2, GM1, ES	E-521	E-521	E-521	E-521		E-522	E-521	
88030563	VF, 11-W4, GM1, ES	E-521	E-521	E-521	E-521				
88030565	VF, 12-W3, GM1, ES	E-523	E-523	E-523	E-523		E-524	E-523	
88030566	VF, 1-W2, GM1, ES	E-523	E-523	E-523	E-523		E-524	E-523	
88030567	VF, ET-1, GM1, ES	E-523	E-523	E-523	E-523		E-524	E-523	
88030568	VF, ET-2, GM1, ES	E-523	E-523	E-523	E-523		E-524	E-523	
88030569	VF, ET-3, GM1, ES	E-523	E-523	E-523	E-523		E-524	E-523	
88030570	VF, 11-W5, GM1, ES	E-523	E-523	E-523	E-523				
88030572	VF, ET-5, GM1, ES	E-525	E-525	E-525	E-525		E-515	E-525	
88030573	VF, ET-4, GM1, ES	E-525	E-525	E-525	E-525		E-515	E-525	
88030574	VF, 13-W1, GM1, ES	E-525	E-525	E-525	E-525		E-515	E-525	
88030575	VF, ET-7, GM1, ES	E-525	E-525	E-525	E-525		E-515	E-525	
88030576	VF, ET-6, GM1, ES	E-525	E-525	E-525	E-525		E-515	E-525	
88030577	VF, 11-W6, GM1, ES	E-525	E-525	E-525	E-525		E-541	E-551	
88071335	VF, 950, GM-1, ES	E-526	E-526	E-526	E-526				
88071336	Trip Blank	E-526	E-526	E-526	E-526				
88071337	VF, 934, GM-1, ES	E-526	E-526	E-526	E-526				
88071338	VF, 916, GM-1, ES	E-526	E-526	E-526	E-526				

* Holding times for Base/Neutral Acid Extractables are on the Analytical Data Sheet.

**ANALYTICAL RESULTS FOR
PURGEABLE HALOCARBONS**

04/20/88

ANALYSIS REPORT FOR WORK ORDER NUMBER 467

TASK: 4, UNITS: ug/KG, GROUP 8010

TEST COMPOUND	VF1,B-3,SS-3, 8.5'	VF1,B-21,SS-1, 1.0'	VF1,B-22,SS-1, 0.5'	VF1,B-4,SS-1, 0.5'	VF1,B-1,SS-1, 0.5'	VF1,B-1,SS-2, 3.5'
	88010186	88010187	88010188	88010189	88010190	88010191
BENZYL CHLORIDE	ND	ND	ND	ND	ND	ND
BIS (2-CHLOROETHOXY)METHANE	ND	ND	ND	ND	ND	ND
BIS (2-CHLOROISOPROPYL)ETHER	ND	ND	ND	ND	ND	ND
BROMOBENZENE	ND	ND	ND	ND	ND	ND
BROMODICHLOROMETHANE	ND	ND	ND	ND	ND	ND
BROMOFORM	ND	ND	ND	ND	ND	ND
BROMOETHANE	ND	ND	ND	ND	ND	ND
CARBON TETRACHLORIDE	ND	ND	ND	ND	ND	ND
CHLORACETALDEHYDE	ND	ND	ND	ND	ND	ND
CHLORAL	ND	ND	ND	ND	ND	ND
CHLOROBENZENE	ND	ND	ND	ND	ND	ND
CHLOROETHANE	ND	ND	ND	ND	ND	ND
CHLOROFORM	ND	ND	ND	ND	ND	ND
1-CHLOROHXANE	ND	ND	ND	ND	ND	ND
2-CHLOROETHYL VINYL ETHER	ND	ND	ND	ND	ND	ND
CHLOROMETHANE	ND	ND	ND	ND	ND	ND
CHLOROMETHYL METHYL ETHER	ND	ND	ND	ND	ND	ND
CHLOROTOLUENE	ND	ND	ND	ND	ND	ND
DIBROMOCHLOROMETHANE	ND	ND	ND	ND	ND	ND
DIBROMOMETHANE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,4-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
DICHLORODIFLUOROMETHANE	ND	ND	ND	ND	ND	ND
1,1-DICHLOROETHANE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROETHANE	ND	ND	ND	ND	ND	ND
1,1-DICHLOROETHYLENE	ND	ND	ND	ND	ND	ND
TRANS-1,2-DICHLOROETHYLENE	ND	ND	ND	ND	ND	ND
DICHLOROMETHANE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROPROPANE	ND	ND	ND	ND	ND	ND
1,3-DICHLOROPROPYLENE	ND	ND	ND	ND	ND	ND
1,1,2,2-TETRACHLOROETHANE	ND	ND	ND	ND	ND	ND
1,1,1,2-TETRACHLOROETHANE	ND	ND	ND	ND	ND	ND
TETRACHLOROETHYLENE	ND	ND	0.73	0.53	0.94	0.70
1,1,1-TRICHLOROETHANE	ND	ND	ND	ND	ND	ND
1,1,2-TRICHLOROETHANE	ND	ND	ND	ND	ND	ND
TRICHLOROETHYLENE	ND	ND	41	8.0	33	17
TRICHLOROFLUOROMETHANE	ND	ND	ND	ND	ND	ND
TRICHLOROPROPANE	ND	ND	ND	ND	ND	ND
VINYL CHLORIDE	ND	ND	ND	ND	ND	ND

ANALYSIS REPORT FOR WORK ORDER NUMBER 467

TASK: 4, UNITS: ug/KG, GROUP 8010

TEST COMPOUND	VF1,B-1,SS-3, 3.5' 88010192	VF1,B-2,SS-1, 0.5' 88010193	VF1,B-2,SS-2, 3.5' 88010194	VF1,B-2,SS-3, 8.5' 88010195	VF1,B-3,SS-1, 1.0' 88010196	VF1,B-3,SS-2, 3.5' 88010197
BENZYL CHLORIDE	ND	ND	ND	ND	ND	ND
BIS (2-CHLOROETHOXY)METHANE	ND	ND	ND	ND	ND	ND
BIS (2-CHLOROISOPROPYL)ETHER	ND	ND	ND	ND	ND	ND
BROMOBENZENE	ND	ND	ND	ND	ND	ND
BROMODICHLOROMETHANE	ND	ND	ND	ND	ND	ND
BROMOFORM	ND	ND	ND	ND	ND	ND
BROMOETHANE	ND	ND	ND	ND	ND	ND
CARBON TETRACHLORIDE	ND	ND	ND	ND	ND	ND
CHLORACETALDEHYDE	ND	ND	ND	ND	ND	ND
CHLORAL	ND	ND	ND	ND	ND	ND
CHLOROBENZENE	ND	ND	ND	ND	ND	ND
CHLOROETHANE	ND	ND	ND	ND	ND	ND
CHLOROFORM	ND	ND	ND	ND	ND	ND
1-CHLOROHXANE	ND	ND	ND	ND	ND	ND
2-CHLOROETHYL VINYL ETHER	ND	ND	ND	ND	ND	ND
CHLOROMETHANE	ND	ND	ND	ND	ND	ND
CHLOROMETHYL METHYL ETHER	ND	ND	ND	ND	ND	ND
CHLOROTOLUENE	ND	ND	ND	ND	ND	ND
DIBROMOCHLOROMETHANE	ND	ND	ND	ND	ND	ND
DIBROMOMETHANE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,4-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
DICHLORODIFLUOROMETHANE	ND	ND	ND	ND	ND	ND
1,1-DICHLOROETHANE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROETHANE	ND	ND	ND	ND	ND	ND
1,1-DICHLOROETHYLENE	ND	ND	ND	ND	ND	ND
TRANS-1,2-DICHLOROETHYLENE	ND	ND	ND	ND	ND	ND
DICHLOROMETHANE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROPROPANE	ND	ND	ND	ND	ND	ND
1,3-DICHLOROPROPYLENE	ND	ND	ND	ND	ND	ND
1,1,2,2-TETRACHLOROETHANE	ND	ND	ND	ND	ND	ND
1,1,1,2-TETRACHLOROETHANE	ND	ND	ND	ND	ND	ND
TETRACHLOROETHYLENE	0.58	ND	ND	ND	ND	ND
1,1,1-TRICHLOROETHANE	ND	ND	ND	ND	ND	ND
1,1,2-TRICHLOROETHANE	ND	ND	ND	ND	ND	ND
TRICHLOROETHYLENE	14	ND	ND	ND	ND	ND
TRICHLOROFLUOROMETHANE	ND	ND	ND	ND	ND	ND
TRICHLOROPROPANE	ND	ND	ND	ND	ND	ND
VINYL CHLORIDE	ND	ND	ND	ND	ND	ND

ANALYSIS REPORT FOR WORK ORDER NUMBER 467

TASK: 4, UNITS: ug/KG, GROUP 8010

TEST COMPOUND	VF1,B-4,SS-2, 3.5' 88010198	VF1,B-4,SS-3, 8.5' 88010199
BENZYL CHLORIDE	ND	ND
BIS (2-CHLOROETHOXY) METHANE	ND	ND
BIS (2-CHLOROISOPROPYL) ETHER	ND	ND
BROMOBENZENE	ND	ND
BROMODICHLOROMETHANE	ND	ND
BROMOFORM	ND	ND
BROMOETHANE	ND	ND
CARBON TETRACHLORIDE	ND	ND
CHLORACETALDEHYDE	ND	ND
CHLORAL	ND	ND
CHLOROBENZENE	ND	ND
CHLOROETHANE	ND	ND
CHLOROFORM	ND	ND
1-CHLOROHEXANE	ND	ND
2-CHLOROETHYL VINYL ETHER	ND	ND
CHLOROMETHANE	ND	ND
CHLOROMETHYL METHYL ETHER	ND	ND
CHLOROTOLUENE	ND	ND
DIBROMOCHLOROMETHANE	ND	ND
DIBROMOMETHANE	ND	ND
1,2-DICHLOROBENZENE	ND	ND
1,3-DICHLOROBENZENE	ND	ND
1,4-DICHLOROBENZENE	ND	ND
DICHLORODIFLUOROMETHANE	ND	ND
1,1-DICHLOROETHANE	ND	ND
1,2-DICHLOROETHANE	ND	ND
1,1-DICHLOROETHYLENE	ND	ND
TRANS-1,2-DICHLOROETHYLENE	ND	ND
DICHLOROMETHANE	ND	ND
1,2-DICHLOROPROPANE	ND	ND
1,3-DICHLOROPROPYLENE	ND	ND
1,1,2,2-TETRACHLOROETHANE	ND	ND
1,1,1,2-TETRACHLOROETHANE	ND	ND
TETRACHLOROETHYLENE	ND	ND
1,1,1-TRICHLOROETHANE	ND	ND
1,1,2-TRICHLOROETHANE	ND	ND
TRICHLOROETHYLENE	ND	ND
TRICHLORODIFLUOROMETHANE	ND	ND
TRICHLOROPROPANE	ND	ND
VINYL CHLORIDE	ND	ND

2ND COLUMN CONFIRMATION DATA

4-21-88

WORK ORDER NUMBER 467

TASK: 4, UNITS: ug/Kg, GROUP 8010

88010188

VF1,B-22,SS-1,0.5'

TEST COMPOUND	Analysis Results	
	Col 1	Col 2
BENZYL CHLORIDE	ND	ND
BIS (2-CHLOROETHOXY)METHANE	ND	ND
BIS (2-CHLOROISOPROPYL)ETHER	ND	ND
BROMOBENZENE	ND	ND
BROMODICHLOROMETHANE	ND	ND
BROMOFORM	ND	ND
BROMOETHANE	ND	ND
CARBON TETRACHLORIDE	ND	ND
CHLORACETALDEHYDE	ND	ND
CHLORAL	ND	ND
CHLOROBENZENE	ND	ND
CHLOROETHANE	ND	ND
CHLOROFORM	ND	ND
1-CHLOROHEXANE	ND	ND
2-CHLOROETHYL VINYL ETHER	ND	ND
CHLOROMETHANE	ND	ND
CHLOROMETHYL METHYL ETHER	ND	ND
CHLOROTOLUENE	ND	ND
DIBROMOCHLOROMETHANE	ND	ND
DIBROMOMETHANE	ND	ND
1,2-DICHLOROBENZENE	ND	ND
1,3-DICHLOROBENZENE	ND	ND
1,4-DICHLOROBENZENE	ND	ND
DICHLORODIFLUOROMETHANE	ND	ND
1,1-DICHLOROETHANE	ND	ND
1,2-DICHLOROETHANE	ND	ND
1,1-DICHLOROETHYLENE	ND	ND
TRANS-1,2-DICHLOROETHYLENE	ND	ND
DICHLOROMETHANE	ND	ND
1,2-DICHLOROPROPANE	ND	ND
1,3-DICHLOROPROPYLENE	ND	ND
1,1,2,2-TETRACHLOROETHANE	ND	ND
1,1,1,2-TETRACHLOROETHANE	ND	ND
TETRACHLOROETHYLENE	0.73	1.4
1,1,1-TRICHLOROETHANE	ND	ND
1,1,2-TRICHLOROETHANE	ND	ND
TRICHLOROETHYLENE	41	48
TRICHLOROFLUOROMETHANE	ND	ND
TRICHLOROPROPANE	ND	ND
VINYL CHLORIDE	ND	ND

178.26.1

2ND COLUMN CONFIRMATION DATA

4-21-88

WORK ORDER NUMBER 467

TASK: 4, UNITS: ug/Kg, GROUP 8010

88010189

VF1,B-4,SS-1,0.5'

TEST COMPOUND	Analysis Results	
	Col 1	Col 2
BENZYL CHLORIDE	ND	ND
BIS (2-CHLOROETHOXY)METHANE	ND	ND
BIS (2-CHLOROISOPROPYL)ETHER	ND	ND
BROMOBENZENE	ND	ND
BROMODICHLOROMETHANE	ND	ND
BROMOFORM	ND	ND
BROMOETHANE	ND	ND
CARBON TETRACHLORIDE	ND	ND
CHLORACETALDEHYDE	ND	ND
CHLORAL	ND	ND
CHLOROBENZENE	ND	ND
CHLOROETHANE	ND	ND
CHLOROFORM	ND	ND
1-CHLOROHEXANE	ND	ND
2-CHLOROETHYL VINYL ETHER	ND	ND
CHLOROMETHANE	ND	ND
CHLOROMETHYL METHYL ETHER	ND	ND
CHLOROTOLUENE	ND	ND
DIBROMOCHLOROMETHANE	ND	ND
DIBROMOMETHANE	ND	ND
1,2-DICHLOROBENZENE	ND	ND
1,3-DICHLOROBENZENE	ND	ND
1,4-DICHLOROBENZENE	ND	ND
DICHLORODIFLUOROMETHANE	ND	ND
1,1-DICHLOROETHANE	ND	ND
1,2-DICHLOROETHANE	ND	ND
1,1-DICHLOROETHYLENE	ND	ND
TRANS-1,2-DICHLOROETHYLENE	ND	ND
DICHLOROMETHANE	ND	ND
1,2-DICHLOROPROPANE	ND	ND
1,3-DICHLOROPROPYLENE	ND	ND
1,1,2,2-TETRACHLOROETHANE	ND	ND
1,1,1,2-TETRACHLOROETHANE	ND	ND
TETRACHLOROETHYLENE	0.53	0.63
1,1,1-TRICHLOROETHANE	ND	ND
1,1,2-TRICHLOROETHANE	ND	ND
TRICHLOROETHYLENE	8.0	3.2
TRICHLOROFLUOROMETHANE	ND	ND
TRICHLOROPROPANE	ND	ND
VINYL CHLORIDE	ND	ND

2ND COLUMN CONFIRMATION DATA

4-21-88

WORK ORDER NUMBER 467

TASK: 4, UNITS: ug/Kg, GROUP 8010

88010190

VF1,B-1,SS-1,0.5'

TEST COMPOUND	Analysis Results	
	Col 1	Col 2
BENZYL CHLORIDE	ND	ND
BIS (2-CHLOROETHOXY)METHANE	ND	ND
BIS (2-CHLOROISOPROPYL)ETHER	ND	ND
BROMOBENZENE	ND	ND
BROMODICHLOROMETHANE	ND	ND
BROMOFORM	ND	ND
BROMOETHANE	ND	ND
CARBON TETRACHLORIDE	ND	ND
CHLORACETALDEHYDE	ND	ND
CHLORAL	ND	ND
CHLOROBENZENE	ND	ND
CHLOROETHANE	ND	ND
CHLOROFORM	ND	ND
1-CHLOROHEXANE	ND	ND
2-CHLOROETHYL VINYL ETHER	ND	ND
CHLOROMETHANE	ND	ND
CHLOROMETHYL METHYL ETHER	ND	ND
CHLOROTOLUENE	ND	ND
DIBROMOCHLOROMETHANE	ND	ND
DIBROMOMETHANE	ND	ND
1,2-DICHLOROBENZENE	ND	ND
1,3-DICHLOROBENZENE	ND	ND
1,4-DICHLOROBENZENE	ND	ND
DICHLORODIFLUOROMETHANE	ND	ND
1,1-DICHLOROETHANE	ND	ND
1,2-DICHLOROETHANE	ND	ND
1,1-DICHLOROETHYLENE	ND	ND
TRANS-1,2-DICHLOROETHYLENE	ND	ND
DICHLOROMETHANE	ND	ND
1,2-DICHLOROPROPANE	ND	ND
1,3-DICHLOROPROPYLENE	ND	ND
1,1,2,2-TETRACHLOROETHANE	ND	ND
1,1,1,2-TETRACHLOROETHANE	ND	ND
TETRACHLOROETHYLENE	0.94	0.32
1,1,1-TRICHLOROETHANE	ND	ND
1,1,2-TRICHLOROETHANE	ND	ND
TRICHLOROETHYLENE	33	55
TRICHLOROFLUOROMETHANE	ND	ND
TRICHLOROPROPANE	ND	ND
VINYL CHLORIDE	ND	ND

2ND COLUMN CONFIRMATION DATA

4-21-88

WORK ORDER NUMBER 467

TASK: 4, UNITS: ug/Kg, GROUP 8010

88010191

VF1,B-1,SS-2,3.5'

TEST COMPOUND	Analysis Results	
	Col 1	Col 2
BENZYL CHLORIDE	ND	ND
BIS (2-CHLOROETHOXY)METHANE	ND	ND
BIS (2-CHLOROISOPROPYL)ETHER	ND	ND
BROMOBENZENE	ND	ND
BROMODICHLOROMETHANE	ND	ND
BROMOFORM	ND	ND
BROMOETHANE	ND	ND
CARBON TETRACHLORIDE	ND	ND
CHLORACETALDEHYDE	ND	ND
CHLORAL	ND	ND
CHLOROBENZENE	ND	ND
CHLOROETHANE	ND	ND
CHLOROFORM	ND	ND
1-CHLOROHEXANE	ND	ND
2-CHLOROETHYL VINYL ETHER	ND	ND
CHLOROMETHANE	ND	ND
CHLOROMETHYL METHYL ETHER	ND	ND
CHLOROTOLUENE	ND	ND
DIBROMOCHLOROMETHANE	ND	ND
DIBROMOMETHANE	ND	ND
1,2-DICHLOROBENZENE	ND	ND
1,3-DICHLOROBENZENE	ND	ND
1,4-DICHLOROBENZENE	ND	ND
DICHLORODIFLUOROMETHANE	ND	ND
1,1-DICHLOROETHANE	ND	ND
1,2-DICHLOROETHANE	ND	ND
1,1-DICHLOROETHYLENE	ND	ND
TRANS-1,2-DICHLOROETHYLENE	ND	ND
DICHLOROMETHANE	ND	ND
1,2-DICHLOROPROPANE	ND	ND
1,3-DICHLOROPROPYLENE	ND	ND
1,1,2,2-TETRACHLOROETHANE	ND	ND
1,1,1,2-TETRACHLOROETHANE	ND	ND
TETRACHLOROETHYLENE	0.70	0.86
1,1,1-TRICHLOROETHANE	ND	ND
1,1,2-TRICHLOROETHANE	ND	ND
TRICHLOROETHYLENE	17	24
TRICHLOROFLUOROMETHANE	ND	ND
TRICHLOROPROPANE	ND	ND
VINYL CHLORIDE	ND	ND

2ND COLUMN CONFIRMATION DATA

4-21-88

WORK ORDER NUMBER 467

TASK: 4, UNITS: ug/Kg, GROUP 8010

88010192

VF1,B-1,SS-3,8.5'

TEST COMPOUND	Analysis Results	
	Col 1	Col 2
BENZYL CHLORIDE	ND	ND
BIS (2-CHLOROETHOXY)METHANE	ND	ND
BIS (2-CHLOROISOPROPYL)ETHER	ND	ND
BROMOBENZENE	ND	ND
BROMODICHLOROMETHANE	ND	ND
BROMOFORM	ND	ND
BROMOETHANE	ND	ND
CARBON TETRACHLORIDE	ND	ND
CHLORACETALDEHYDE	ND	ND
CHLORAL	ND	ND
CHLOROBENZENE	ND	ND
CHLOROETHANE	ND	ND
CHLOROFORM	ND	ND
1-CHLOROHEXANE	ND	ND
2-CHLOROETHYL VINYL ETHER	ND	ND
CHLOROMETHANE	ND	ND
CHLOROMETHYL METHYL ETHER	ND	ND
CHLOROTOLUENE	ND	ND
DIBROMOCHLOROMETHANE	ND	ND
DIBROMOMETHANE	ND	ND
1,2-DICHLOROBENZENE	ND	ND
1,3-DICHLOROBENZENE	ND	ND
1,4-DICHLOROBENZENE	ND	ND
DICHLORODIFLUOROMETHANE	ND	ND
1,1-DICHLOROETHANE	ND	ND
1,2-DICHLOROETHANE	ND	ND
1,1-DICHLOROETHYLENE	ND	ND
TRANS-1,2-DICHLOROETHYLENE	ND	ND
DICHLOROMETHANE	ND	ND
1,2-DICHLOROPROPANE	ND	ND
1,3-DICHLOROPROPYLENE	ND	ND
1,1,2,2-TETRACHLOROETHANE	ND	ND
1,1,1,2-TETRACHLOROETHANE	ND	ND
TETRACHLOROETHYLENE	0.58	0.38
1,1,1-TRICHLOROETHANE	ND	ND
1,1,2-TRICHLOROETHANE	ND	ND
TRICHLOROETHYLENE	14	19
TRICHLOROFLUOROMETHANE	ND	ND
TRICHLOROPROPANE	ND	ND
VINYL CHLORIDE	ND	ND

Detection Limits
Halogenated Volatile Organics
EPA Method 8010
Samples No.: 88010186 - 88010199

<u>Compound</u>	<u>Detection Limits</u>
Benzyl chloride	0.50 ug/Kg
bis (2-chloroethoxy) methane	0.50
bis (2-chloroisopropyl) ether	0.50
Bromobenzene	0.50
Bromodichloromethane	0.10
Bromoform	0.20
Bromomethane	0.50
Carbon tetrachloride	0.12
Chloroacetaldehyde	0.50
Chloral	0.50
Chlorobenzene	0.25
Chloroethane	0.52
Chloroform	0.05
1-Chlorohexane	0.50
2-Chloroethyl vinyl ether	0.13
Chloromethane	0.08
Chloromethyl methyl ether	0.50
O-,m-, & p-Chlorotoluenes	0.50
Dibromochloromethane	0.09
Dibromomethane	0.50
1,2-Dichlorobenzene	0.15
1,3-Dichlorobenzene	0.32
1,4-Dichlorobenzene	0.24
Dichlorodifluoromethane	0.50
1,1-Dichloroethane	0.07
1,2-Dichloroethane	0.03
1,1-Dichloroethylene	0.13
trans-1,2-Dichloroethylene	0.10
Dichloromethane	0.50
1,2-Dichloropropane	0.04
1,3-Dichloropropylene	0.34
1,1,2,2-Tetrachloroethane	0.03
1,1,1,2-Tetrachloroethane	0.50
Tetrachloroethylene	0.03
1,1,1-Trichloroethane	0.03
1,1,2-Trichloroethane	0.02
Trichloroethylene	0.12
Trichlorofluoromethane	0.50
Trichloropropane	0.50
Vinyl chloride	0.18

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

ANALYSIS REPORT FOR WORK ORDER NUMBER 472

TASK: 4, UNITS: ug/KG, GROUP 8010

TEST COMPOUND	VF1,8-7,SS-3, 3.5' 88010204	VF1,8-6,SS-2, 3.5' 88010205	VF1,8-6,SS-3, 8.5' 88010206	VF1,8-7,SS-1, 0' 88010207	VF1,8-7,SS-2, 3.5' 88010208	VF1,8-5,SS-1,0' 88010209
BENZYL CHLORIDE	ND	ND	ND	ND	ND	ND
BIS (2-CHLOROETHOXY)METHANE	ND	ND	ND	ND	ND	ND
BIS (2-CHLOROISOPROPYL)ETHER	ND	ND	ND	ND	ND	ND
BROMOBENZENE	ND	ND	ND	ND	ND	ND
BROMODICHLOROMETHANE	ND	ND	ND	ND	ND	ND
BROMOFORM	ND	ND	ND	ND	ND	ND
BROMOETHANE	ND	ND	ND	ND	ND	ND
CARBON TETRACHLORIDE	ND	ND	ND	ND	ND	ND
CHLORACETALDEHYDE	ND	ND	ND	ND	ND	ND
CHLORAL	ND	ND	ND	ND	ND	ND
CHLOROBENZENE	ND	ND	ND	ND	ND	ND
CHLOROETHANE	ND	ND	ND	ND	ND	ND
CHLOROFORM	ND	ND	ND	ND	ND	ND
1-CHLOROHXANE	ND	ND	ND	ND	ND	ND
2-CHLOROETHYL VINYL ETHER	ND	ND	ND	ND	ND	ND
CHLOROMETHANE	ND	ND	ND	ND	ND	ND
CHLOROMETHYL METHYL ETHER	ND	ND	ND	ND	ND	ND
CHLOROTOLUENE	ND	ND	ND	ND	ND	ND
DIBROMOCHLOROMETHANE	ND	ND	ND	ND	ND	ND
DIBROMOMETHANE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,4-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
DICHLORODIFLUOROMETHANE	ND	ND	ND	ND	ND	ND
1,1-DICHLOROETHANE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROETHANE	ND	ND	ND	ND	ND	ND
1,1-DICHLOROETHYLENE	ND	ND	ND	ND	ND	ND
TRANS-1,2-DICHLOROETHYLENE	ND	ND	ND	ND	ND	ND
DICHLOROMETHANE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROPROPANE	ND	ND	ND	ND	ND	ND
1,3-DICHLOROPROPYLENE	ND	ND	ND	ND	ND	ND
1,1,2,2-TETRACHLOROETHANE	ND	ND	ND	ND	ND	ND
1,1,1,2-TETRACHLOROETHANE	ND	ND	ND	ND	ND	ND
TETRACHLOROETHYLENE	ND	ND	ND	ND	ND	ND
1,1,1-TRICHLOROETHANE	ND	ND	ND	ND	ND	ND
1,1,2-TRICHLOROETHANE	ND	ND	ND	ND	ND	ND
TRICHLOROETHYLENE	ND	5.7	8.6	ND	ND	ND
TRICHLOROFLUOROMETHANE	ND	ND	ND	ND	ND	ND
TRICHLOROPROPANE	ND	ND	ND	ND	ND	ND
VINYL CHLORIDE	ND	ND	ND	ND	ND	ND

ANALYSIS REPORT FOR WORK ORDER NUMBER 472

TASK: 4, UNITS: ug/KG, GROUP 3010

TEST COMPOUND	VF1,B-5,SS-2, 3.5'	VF1,B-5,SS-3, 10.0'	VF1,B-6,SS-1, 0'
	88010210	88010211	88010212
BENZYL CHLORIDE	ND	ND	ND
BIS (2-CHLOROETHOXY)METHANE	ND	ND	ND
BIS (2-CHLOROISOPROPYL)ETHER	ND	ND	ND
BROMOBENZENE	ND	ND	ND
BROMODICHLOROMETHANE	ND	ND	ND
BROMOFORM	ND	ND	ND
BROMOETHANE	ND	ND	ND
CARBON TETRACHLORIDE	ND	ND	ND
CHLORACETALDEHYDE	ND	ND	ND
CHLORAL	ND	ND	ND
CHLOROBENZENE	ND	ND	ND
CHLOROETHANE	ND	ND	ND
CHLOROFORM	ND	ND	ND
1-CHLOROHEXANE	ND	ND	ND
2-CHLOROETHYL VINYL ETHER	ND	ND	ND
CHLOROMETHANE	ND	ND	ND
CHLOROMETHYL METHYL ETHER	ND	ND	ND
CHLOROTOLUENE	ND	ND	ND
DIBROMOCHLOROMETHANE	ND	ND	ND
DIBROMOMETHANE	ND	ND	ND
1,2-DICHLOROBENZENE	ND	ND	ND
1,3-DICHLOROBENZENE	ND	ND	ND
1,4-DICHLOROBENZENE	ND	ND	ND
DICHLORODIFLUOROMETHANE	ND	ND	ND
1,1-DICHLOROETHANE	ND	ND	ND
1,2-DICHLOROETHANE	ND	ND	ND
1,1-DICHLOROETHYLENE	ND	ND	ND
TRANS-1,2-DICHLOROETHYLENE	ND	ND	ND
DICHLOROMETHANE	ND	ND	ND
1,2-DICHLOROPROPANE	ND	ND	ND
1,3-DICHLOROPROPYLENE	ND	ND	ND
1,1,2,2-TETRACHLOROETHANE	ND	ND	ND
1,1,1,2-TETRACHLOROETHANE	ND	ND	ND
TETRACHLOROETHYLENE	ND	ND	ND
1,1,1-TRICHLOROETHANE	ND	ND	ND
1,1,2-TRICHLOROETHANE	ND	ND	ND
TRICHLOROETHYLENE	ND	ND	ND
TRICHLOROFLUOROMETHANE	ND	ND	ND
TRICHLOROPROPANE	ND	ND	ND
VINYL CHLORIDE	ND	ND	ND

2ND COLUMN CONFIRMATION DATA

4-22-88

WORK ORDER NUMBER 472

TASK: 4, UNITS: ug/Kg, GROUP 8010

88010205

VF1, B-6, SS-2, 3.5'

TEST COMPOUND	Analysis Results	
	Col 1	Col 2
BENZYL CHLORIDE	ND	ND
BIS (2-CHLOROETHOXY)METHANE	ND	ND
BIS (2-CHLOROISOPROPYL)ETHER	ND	ND
BROMOBENZENE	ND	ND
BROMODICHLOROMETHANE	ND	ND
BROMOFORM	ND	ND
BROMOETHANE	ND	ND
CARBON TETRACHLORIDE	ND	ND
CHLORACETALDEHYDE	ND	ND
CHLORAL	ND	ND
CHLOROBENZENE	ND	ND
CHLOROETHANE	ND	ND
CHLOROFORM	ND	ND
1-CHLOROHEXANE	ND	ND
2-CHLOROETHYL VINYL ETHER	ND	ND
CHLOROMETHANE	ND	ND
CHLOROMETHYL METHYL ETHER	ND	ND
CHLOROTOLUENE	ND	ND
DIBROMOCHLOROMETHANE	ND	ND
DIBROMOMETHANE	ND	ND
1,2-DICHLOROBENZENE	ND	ND
1,3-DICHLOROBENZENE	ND	ND
1,4-DICHLOROBENZENE	ND	ND
DICHLORODIFLUOROMETHANE	ND	ND
1,1-DICHLOROETHANE	ND	ND
1,2-DICHLOROETHANE	ND	ND
1,1-DICHLOROETHYLENE	ND	ND
1,2-DICHLOROETHYLENE	ND	ND
DICHLOROMETHANE	ND	ND
1,2-DICHLOROPROPANE	ND	ND
1,3-DICHLOROPROPYLENE	ND	ND
1,1,2,2-TETRACHLOROETHANE	ND	ND
1,1,1,2-TETRACHLOROETHANE	ND	ND
TETRACHLOROETHYLENE	ND	ND
1,1,1-TRICHLOROETHANE	ND	ND
1,1,2-TRICHLOROETHANE	ND	ND
TRICHLOROETHYLENE	5.7	4.9
TRICHLOROFLUOROMETHANE	ND	ND
TRICHLOROPROPANE	ND	ND
VINYL CHLORIDE	ND	ND

179.3.4

2ND COLUMN CONFIRMATION DATA

4-22-88

WORK ORDER NUMBER 472

TASK: 4, UNITS: ug/Kg, GROUP 8010

88010206

VF1, B-6, SS-3, 8.5'

TEST COMPOUND	Analysis Results	
	Col 1	Col 2
BENZYL CHLORIDE	ND	ND
BIS (2-CHLOROETHOXY)METHANE	ND	ND
BIS (2-CHLOROISOPROPYL)ETHER	ND	ND
BROMOBENZENE	ND	ND
BROMODICHLOROMETHANE	ND	ND
BROMOFORM	ND	ND
BROMOETHANE	ND	ND
CARBON TETRACHLORIDE	ND	ND
CHLORACETALDEHYDE	ND	ND
CHLORAL	ND	ND
CHLOROBENZENE	ND	ND
CHLOROETHANE	ND	ND
CHLOROFORM	ND	ND
1-CHLOROHEXANE	ND	ND
2-CHLOROETHYL VINYL ETHER	ND	ND
CHLOROMETHANE	ND	ND
CHLOROMETHYL METHYL ETHER	ND	ND
CHLOROTOLUENE	ND	ND
DIBROMOCHLOROMETHANE	ND	ND
DIBROMOMETHANE	ND	ND
1,2-DICHLOROBENZENE	ND	ND
1,3-DICHLOROBENZENE	ND	ND
1,4-DICHLOROBENZENE	ND	ND
DICHLORODIFLUOROMETHANE	ND	ND
1,1-DICHLOROETHANE	ND	ND
1,2-DICHLOROETHANE	ND	ND
1,1-DICHLOROETHYLENE	ND	ND
1,2-DICHLOROETHYLENE	ND	ND
DICHLOROMETHANE	ND	ND
1,2-DICHLOROPROPANE	ND	ND
1,3-DICHLOROPROPYLENE	ND	ND
1,1,2,2-TETRACHLOROETHANE	ND	ND
1,1,1,2-TETRACHLOROETHANE	ND	ND
TETRACHLOROETHYLENE	ND	ND
1,1,1-TRICHLOROETHANE	ND	ND
1,1,2-TRICHLOROETHANE	ND	ND
TRICHLOROETHYLENE	8.6	3.2
TRICHLOROFLUOROMETHANE	ND	ND
TRICHLOROPROPANE	ND	ND
VINYL CHLORIDE	ND	ND

179.3.5

Detection Limits
 Halogenated Volatile Organics
 EPA Method 8010
 Sample(s) No.: 88010204-88010212

<u>Compound</u>	<u>Detection Limits</u>
Benzyl chloride	0.50 ug/Kg
bis (2-chloroethoxy) methane	0.50
bis (2-chloroisopropyl) ether	0.50
Bromobenzene	0.50
Bromodichloromethane	0.10
Bromoform	0.20
Bromomethane	0.50
Carbon tetrachloride	0.12
Chloroacetaldehyde	0.50
Chloral	0.50
Chlorobenzene	0.25
Chloroethane	0.52
Chloroform	0.05
1-Chlorohexane	0.50
2-Chloroethyl vinyl ether	0.13
Chloromethane	0.08
Chloromethyl methyl ether	0.50
O-, m-, & p-Chlorotoluenes	0.50
Dibromochloromethane	0.09
Dibromomethane	0.50
1,2-Dichlorobenzene	0.15
1,3-Dichlorobenzene	0.32
1,4-Dichlorobenzene	0.24
Dichlorodifluoromethane	0.50
1,1-Dichloroethane	0.07
1,2-Dichloroethane	0.03
1,1-Dichloroethylene	0.13
trans-1,2-Dichloroethylene	0.10
Dichloromethane	0.50
1,2-Dichloropropane	0.04
1,3-Dichloropropylene	0.34
1,1,2,2-Tetrachloroethane	0.03
1,1,1,2-Tetrachloroethane	0.50
Tetrachloroethylene	0.03
1,1,1-Trichloroethane	0.03
1,1,2-Trichloroethane	0.02
Trichloroethylene	0.12
Trichlorofluoromethane	0.50
Trichloropropane	0.50
Vinyl chloride	0.18

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

179.3.1

ENGINEERING SCIENCE INC.
04/18/88

PAGE 3

ANALYSIS REPORT FOR WORK ORDER NUMBER 474

TASK: 4, UNITS: ug/KG, GROUP 8010

TEST COMPOUND	VF1,8-26,SS-1, 0'	VF1,8-9,SS-2, 3.5'	VF1,8-9,SS-3, 8.5'	VF1,8-8,SS-1, 0'	VF1,8-8,SS-2, 3.5'	VF1,8-8,SS-3, 8.5'
	98010214	98010215	98010216	98010217	98010218	98010219
BENZYL CHLORIDE	ND	ND	ND	ND	ND	ND
BIS (2-CHLOROETHOXY)METHANE	ND	ND	ND	ND	ND	ND
BIS (2-CHLOROISOPROPYL)ETHER	ND	ND	ND	ND	ND	ND
BROMOBENZENE	ND	ND	ND	ND	ND	ND
BROMODICHLOROMETHANE	ND	ND	ND	ND	ND	ND
BROMOFORM	ND	ND	ND	ND	ND	ND
BROMOETHANE	ND	ND	ND	ND	ND	ND
CARBON TETRACHLORIDE	ND	ND	ND	ND	ND	ND
CHLORACETALDEHYDE	ND	ND	ND	ND	ND	ND
CHLORAL	ND	ND	ND	ND	ND	ND
CHLOROBENZENE	ND	ND	ND	ND	ND	ND
CHLOROETHANE	ND	ND	ND	ND	ND	ND
CHLOROFORM	ND	ND	ND	ND	ND	ND
1-CHLOROHXANE	ND	ND	ND	ND	ND	ND
2-CHLOROETHYL VINYL ETHER	ND	ND	ND	ND	ND	ND
CHLOROMETHANE	ND	ND	ND	ND	ND	ND
CHLOROMETHYL METHYL ETHER	ND	ND	ND	ND	ND	ND
CHLOROTOLUENE	ND	ND	ND	ND	ND	ND
DIBROMOCHLOROMETHANE	ND	ND	ND	ND	ND	ND
DIBROMOMETHANE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,4-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
DICHLORODIFLUOROMETHANE	ND	ND	ND	ND	ND	ND
1,1-DICHLOROETHANE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROETHANE	ND	ND	ND	ND	ND	ND
1,1-DICHLOROETHYLENE	ND	ND	ND	ND	ND	ND
TRANS-1,2-DICHLOROETHYLENE	ND	ND	ND	ND	ND	ND
DICHLOROMETHANE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROPROPANE	ND	ND	ND	ND	ND	ND
1,3-DICHLOROPROPYLENE	ND	ND	ND	ND	ND	ND
1,1,2,2-TETRACHLOROETHANE	ND	ND	ND	ND	ND	ND
1,1,1,2-TETRACHLOROETHANE	ND	ND	ND	ND	ND	ND
TETRACHLOROETHYLENE	ND	ND	ND	ND	ND	ND
1,1,1-TRICHLOROETHANE	ND	ND	ND	ND	ND	ND
1,1,2-TRICHLOROETHANE	ND	ND	ND	ND	ND	ND
TRICHLOROETHYLENE	ND	ND	ND	ND	ND	ND
TRICHLOROFLUOROMETHANE	ND	ND	ND	ND	ND	ND
TRICHLOROPROPANE	ND	ND	ND	ND	ND	ND
VINYL CHLORIDE	ND	ND	ND	ND	ND	ND

ENGINEERING SCIENCE INC.
04/18/88

4098

ANALYSIS REPORT FOR WORK ORDER NUMBER 474

TASK: 4, UNITS: ug/KG, GROUP 8010

VF1,8-9,SS-1,
01
88010220

TEST COMPOUND

BENZYL CHLORIDE	ND
515 (2-CHLOROETHOXY)METHANE	ND
315 (2-CHLOROISOPROPYL)ETHER	ND
BROMOBENZENE	ND
BROMODICHLOROMETHANE	ND
BROMOFORM	ND
BROMOETHANE	ND
CARBON TETRACHLORIDE	ND
CHLOROACETALDEHYDE	ND
CHLORAL	ND
CHLOROBENZENE	ND
CHLOROETHANE	ND
CHLOROFORM	ND
1-CHLOROHEXANE	ND
2-CHLOROETHYL VINYL ETHER	ND
CHLOROMETHANE	ND
CHLOROMETHYL METHYL ETHER	ND
CHLOROTOLUENE	ND
DIBROMOCHLOROMETHANE	ND
DIBROMOMETHANE	ND
1,2-DICHLOROBENZENE	ND
1,3-DICHLOROBENZENE	ND
1,4-DICHLOROBENZENE	ND
DICHLORODIFLUOROMETHANE	ND
1,1-DICHLOROETHANE	ND
1,2-DICHLOROETHANE	ND
1,1-DICHLOROETHYLENE	ND
TRANS-1,2-DICHLOROETHYLENE	ND
DICHLOROMETHANE	ND
1,2-DICHLOROPROPANE	ND
1,3-DICHLOROPROPYLENE	ND
1,1,2,2-TETRACHLOROETHANE	ND
1,1,1,2-TETRACHLOROETHANE	ND
TETRACHLOROETHYLENE	ND
1,1,1-TRICHLOROETHANE	ND
1,1,2-TRICHLOROETHANE	ND
TRICHLOROETHYLENE	ND
TRICHLOROFLUOROMETHANE	ND
TRICHLOROPROPANE	ND
VINYL CHLORIDE	ND

Detection Limits
Halogenated Volatile Organics
EPA Method 8010
Sample(s) No.: 88010214-88010220

<u>Compound</u>	<u>Detection Limits</u>
Benzyl chloride	0.50 ug/Kg
bis (2-chloroethoxy) methane	0.50
bis (2-chloroisopropyl) ether	0.50
Bromobenzene	0.50
Bromodichloromethane	0.10
Bromoform	0.20
Bromomethane	0.50
Carbon tetrachloride	0.12
Chloroacetaldehyde	0.50
Chloral	0.50
Chlorobenzene	0.25
Chloroethane	0.52
Chloroform	0.05
1-Chlorohexane	0.50
2-Chloroethyl vinyl ether	0.13
Chloromethane	0.08
Chloromethyl methyl ether	0.50
O-,m-, & p-Chlorotoluenes	0.50
Dibromochloromethane	0.09
Dibromomethane	0.50
1,2-Dichlorobenzene	0.15
1,3-Dichlorobenzene	0.32
1,4-Dichlorobenzene	0.24
Dichlorodifluoromethane	0.50
1,1-Dichloroethane	0.07
1,2-Dichloroethane	0.03
1,1-Dichloroethylene	0.13
trans-1,2-Dichloroethylene	0.10
Dichloromethane	0.50
1,2-Dichloropropane	0.04
1,3-Dichloropropylene	0.34
1,1,2,2-Tetrachloroethane	0.03
1,1,1,2-Tetrachloroethane	0.50
Tetrachloroethylene	0.03
1,1,1-Trichloroethane	0.03
1,1,2-Trichloroethane	0.02
Trichloroethylene	0.12
Trichlorofluoromethane	0.50
Trichloropropane	0.50
Vinyl chloride	0.18
Freon 113	5

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

179.5.1

ENGINEERING SCIENCE INC.
04/19/88

PAGE 1

ANALYSIS REPORT FOR WORK ORDER NUMBER 489

TASK: 4, UNITS: ug/Kg, GROUP 8010

TEST COMPOUND	VF1,8-10,SS-1, 0.5'	VF1,8-27,SS-1, 0.5'	VF1,8-10,SS-2, 3.5'	VF1,8-10,SS-3, 8.5'	VF1,8-11,SS-1, 1.0'	VF1,8-11,SS-2, 3.5'
	88020289	88020290	88020291	88020292	88020293	88020294
BENZYL CHLORIDE	ND	ND	ND	ND	ND	ND
BIS (2-CHLOROETHOXY)METHANE	ND	ND	ND	ND	ND	ND
BIS (2-CHLOROISOPROPYL)ETHER	ND	ND	ND	ND	ND	ND
BROMOBENZENE	ND	ND	ND	ND	ND	ND
BROMODICHLOROMETHANE	ND	ND	ND	ND	ND	ND
BROMOFORM	ND	ND	ND	ND	ND	ND
BROMOETHANE	ND	ND	ND	ND	ND	ND
CARBON TETRACHLORIDE	ND	ND	ND	ND	ND	ND
CHLOROACETALDEHYDE	ND	ND	ND	ND	ND	ND
CHLORAL	ND	ND	ND	ND	ND	ND
CHLOROBENZENE	ND	ND	ND	ND	ND	ND
CHLOROETHANE	ND	ND	ND	ND	ND	ND
CHLOROFORM	ND	ND	ND	ND	ND	ND
1-CHLOROHXANE	ND	ND	ND	ND	ND	ND
2-CHLOROETHYL VINYL ETHER	ND	ND	ND	ND	ND	ND
CHLOROMETHANE	ND	ND	ND	ND	ND	ND
CHLOROMETHYL METHYL ETHER	ND	ND	ND	ND	ND	ND
CHLOROTOLUENE	ND	ND	ND	ND	ND	ND
DIBROMOCHLOROMETHANE	ND	ND	ND	ND	ND	ND
DIBROMOMETHANE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,4-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
DICHLORODIFLUOROMETHANE	ND	ND	ND	ND	ND	ND
1,1-DICHLOROETHANE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROETHANE	ND	ND	ND	ND	ND	ND
1,1-DICHLOROETHYLENE	ND	ND	ND	ND	ND	ND
TRANS-1,2-DICHLOROETHYLENE	ND	ND	ND	ND	ND	ND
DICHLOROMETHANE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROPROPANE	ND	ND	ND	ND	ND	ND
1,3-DICHLOROPROPYLENE	ND	ND	ND	ND	ND	ND
1,1,2,2-TETRACHLOROETHANE	ND	ND	ND	ND	ND	ND
1,1,1,2-TETRACHLOROETHANE	ND	ND	ND	ND	ND	ND
TETRACHLOROETHYLENE	ND	ND	ND	ND	ND	ND
1,1,1-TRICHLOROETHANE	ND	ND	ND	ND	ND	ND
1,1,2-TRICHLOROETHANE	ND	ND	ND	ND	ND	ND
TRICHLOROETHYLENE	ND	ND	ND	ND	ND	ND
TRICHLOROFLUOROMETHANE	ND	ND	ND	ND	ND	ND
TRICHLOROPROPANE	ND	ND	ND	ND	ND	ND
VINYL CHLORIDE	ND	ND	ND	ND	ND	ND

ENGINEERING SCIENCE INC.
04/19/88

PAGE 4

ANALYSIS REPORT FOR WORK ORDER NUMBER 489

TASK: 4, UNITS: ug/KG, GROUP 8010

TEST COMPOUND	VF1,8-11,SS-3, 3.5'	VF1,8-12,SS-1 1.0'	VF1,8-12,SS-2, 3.5'	VF1,8-12,SS-3, 2.5'	VF1,8-13,SS-1, 1.5'	VF1,3-28,SS-1, 1.5'
	88020295	88020296	88020297	88020298	88020299	88020300
BENZYL CHLORIDE	ND	ND	ND	ND	ND	ND
BIS (2-CHLOROETHOXY)METHANE	ND	ND	ND	ND	ND	ND
BIS (2-CHLOROISOPROPYL)ETHER	ND	ND	ND	ND	ND	ND
BROMOBENZENE	ND	ND	ND	ND	ND	ND
BROMODICHLOROMETHANE	ND	ND	ND	ND	ND	ND
BROMOFORM	ND	ND	ND	ND	ND	ND
BROMOETHANE	ND	ND	ND	ND	ND	ND
CARBON TETRACHLORIDE	ND	ND	ND	ND	ND	ND
CHLORACETALDEHYDE	ND	ND	ND	ND	ND	ND
CHLORAL	ND	ND	ND	ND	ND	ND
CHLOROBENZENE	ND	ND	ND	ND	ND	ND
CHLOROETHANE	ND	ND	ND	ND	ND	ND
CHLOROFORM	ND	ND	ND	ND	ND	ND
1-CHLOROHXANE	ND	ND	ND	ND	ND	ND
2-CHLOROETHYL VINYL ETHER	ND	ND	ND	ND	ND	ND
CHLOROMETHANE	ND	ND	ND	ND	ND	ND
CHLOROMETHYL METHYL ETHER	ND	ND	ND	ND	ND	ND
CHLOROTOLUENE	ND	ND	ND	ND	ND	ND
DIBROMOCHLOROMETHANE	ND	ND	ND	ND	ND	ND
DIBROMOMETHANE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,4-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
DICHLORODIFLUOROMETHANE	ND	ND	ND	ND	ND	ND
1,1-DICHLOROETHANE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROETHANE	ND	ND	ND	ND	ND	ND
1,1-DICHLOROETHYLENE	ND	ND	ND	ND	ND	ND
TRANS-1,2-DICHLOROETHYLENE	ND	ND	ND	ND	ND	ND
DICHLOROMETHANE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROPROPANE	ND	ND	ND	ND	ND	ND
1,3-DICHLOROPROPYLENE	ND	ND	ND	ND	ND	ND
1,1,2,2-TETRACHLOROETHANE	ND	ND	ND	ND	ND	ND
1,1,1,2-TETRACHLOROETHANE	ND	ND	ND	ND	ND	ND
TETRACHLOROETHYLENE	ND	ND	ND	ND	ND	ND
1,1,1-TRICHLOROETHANE	ND	ND	ND	ND	ND	ND
1,1,2-TRICHLOROETHANE	ND	ND	ND	ND	ND	ND
TRICHLOROETHYLENE	3.3	ND	ND	ND	ND	ND
TRICHLOROFLUOROMETHANE	ND	ND	ND	ND	ND	ND
TRICHLOROPROPANE	ND	ND	ND	ND	ND	ND
VINYL CHLORIDE	ND	ND	ND	ND	ND	ND

2ND COLUMN CONFIRMATION DATA

4-22-88

WORK ORDER NUMBER 489

TASK: 4, UNITS: ug/Kg, GROUP 8010

88020295

VF1, B-11, SS-3, 8.5'

TEST COMPOUND	Analysis Results	
	Col 1	Col 2
BENZYL CHLORIDE	ND	ND
BIS (2-CHLOROETHOXY)METHANE	ND	ND
BIS (2-CHLOROISOPROPYL)ETHER	ND	ND
BROMOBENZENE	ND	ND
BROMODICHLOROMETHANE	ND	ND
BROMOFORM	ND	ND
BROMOETHANE	ND	ND
CARBON TETRACHLORIDE	ND	ND
CHLORACETALDEHYDE	ND	ND
CHLORAL	ND	ND
CHLOROBENZENE	ND	ND
CHLOROETHANE	ND	ND
CHLOROFORM	ND	ND
1-CHLOROHEXANE	ND	ND
2-CHLOROETHYL VINYL ETHER	ND	ND
CHLOROMETHANE	ND	ND
CHLOROMETHYL METHYL ETHER	ND	ND
CHLOROTOLUENE	ND	ND
DIBROMOCHLOROMETHANE	ND	ND
DIBROMOMETHANE	ND	ND
1,2-DICHLOROBENZENE	ND	ND
1,3-DICHLOROBENZENE	ND	ND
1,4-DICHLOROBENZENE	ND	ND
DICHLORODIFLUOROMETHANE	ND	ND
1,1-DICHLOROETHANE	ND	ND
1,2-DICHLOROETHANE	ND	ND
1,1-DICHLOROETHYLENE	ND	ND
1,2-DICHLOROETHYLENE	ND	ND
DICHLOROMETHANE	ND	ND
1,2-DICHLOROPROPANE	ND	ND
1,3-DICHLOROPROPYLENE	ND	ND
1,1,2,2-TETRACHLOROETHANE	ND	ND
1,1,1,2-TETRACHLOROETHANE	ND	ND
TETRACHLOROETHYLENE	ND	ND
1,1,1-TRICHLOROETHANE	ND	ND
1,1,2-TRICHLOROETHANE	ND	ND
TRICHLOROETHYLENE	3.3	3.2
TRICHLOROFLUOROMETHANE	ND	ND
TRICHLOROPROPANE	ND	ND
VINYL CHLORIDE	ND	ND

179.2.4

Detection Limits
 Halogenated Volatile Organics
 EPA Method 8010
 Sample(s) No.: 88020289-88020300

<u>Compound</u>	<u>Detection Limits</u>
Benzyl chloride	0.50 ug/Kg
bis (2-chloroethoxy) methane	0.50
bis (2-chloroisopropyl) ether	0.50
Bromobenzene	0.50
Bromodichloromethane	0.10
Bromoform	0.20
Bromomethane	0.50
Carbon tetrachloride	0.12
Chloroacetaldehyde	0.50
Chloral	0.50
Chlorobenzene	0.25
Chloroethane	0.52
Chloroform	0.05
1-Chlorohexane	0.50
2-Chloroethyl vinyl ether	0.13
Chloromethane	0.08
Chloromethyl methyl ether	0.50
O-,m-, & p-Chlorotoluenes	0.50
Dibromochloromethane	0.09
Dibromomethane	0.50
1,2-Dichlorobenzene	0.15
1,3-Dichlorobenzene	0.32
1,4-Dichlorobenzene	0.24
Dichlorodifluoromethane	0.50
1,1-Dichloroethane	0.07
1,2-Dichloroethane	0.03
1,1-Dichloroethylene	0.13
trans-1,2-Dichloroethylene	0.10
Dichloromethane	0.50
1,2-Dichloropropane	0.04
1,3-Dichloropropylene	0.34
1,1,2,2-Tetrachloroethane	0.03
1,1,1,2-Tetrachloroethane	0.50
Tetrachloroethylene	0.03
1,1,1-Trichloroethane	0.03
1,1,2-Trichloroethane	0.02
Trichloroethylene	0.12
Trichlorofluoromethane	0.50
Trichloropropane	0.50
Vinyl chloride	0.18
Freon 113	5

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

179.2.1

ENGINEERING SCIENCE INC.
04/18/88

PAGE 1

ANALYSIS REPORT FOR WORK ORDER NUMBER 500

TASK: 4, UNITS: ug/KG, GROUP 8010

TEST COMPOUND	VF1,8-14,SS-3, 3.5'	VF1,8-15,SS-1, 0.5'	VF1,8-15,SS-2, 3.5'	VF1,8-15,SS-3, 3.5'	VF1,8-13,SS-2, 3.5'	VF1,8-13,SS-3, 3.5'
	88020371	88020372	88020373	88020374	88020375	88020376
BENZYL CHLORIDE	ND	ND	ND	ND	ND	ND
BIS (2-CHLOROETHOXY)METHANE	ND	ND	ND	ND	ND	ND
BIS (2-CHLOROISOPROPYL)ETHER	ND	ND	ND	ND	ND	ND
BROMOBENZENE	ND	ND	ND	ND	ND	ND
BROMODICHLOROMETHANE	ND	ND	ND	ND	ND	ND
BROMOFORM	ND	ND	ND	ND	ND	ND
BROMOETHANE	ND	ND	ND	ND	ND	ND
CARBON TETRACHLORIDE	ND	ND	ND	ND	ND	ND
CHLORACETALDEHYDE	ND	ND	ND	ND	ND	ND
CHLORAL	ND	ND	ND	ND	ND	ND
CHLOROBENZENE	ND	ND	ND	ND	ND	ND
CHLOROETHANE	ND	ND	ND	ND	ND	ND
CHLOROFORM	ND	ND	ND	ND	ND	ND
1-CHLOROHXANE	ND	ND	ND	ND	ND	ND
2-CHLOROETHYL VINYL ETHER	ND	ND	ND	ND	ND	ND
CHLOROMETHANE	ND	ND	ND	ND	ND	ND
CHLOROMETHYL METHYL ETHER	ND	ND	ND	ND	ND	ND
CHLOROTOLUENE	ND	ND	ND	ND	ND	ND
DIBROMOCHLOROMETHANE	ND	ND	ND	ND	ND	ND
DIBROMOMETHANE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,4-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
DICHLORDIFLUOROMETHANE	ND	ND	ND	ND	ND	ND
1,1-DICHLOROETHANE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROETHANE	ND	ND	ND	ND	ND	ND
1,1-DICHLOROETHYLENE	ND	ND	ND	ND	ND	ND
TRANS-1,2-DICHLOROETHYLENE	ND	ND	ND	ND	ND	ND
DICHLOROMETHANE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROPROPANE	ND	ND	ND	ND	ND	ND
1,3-DICHLOROPROPYLENE	ND	ND	ND	ND	ND	ND
1,1,2,2-TETRACHLOROETHANE	ND	ND	ND	ND	ND	ND
1,1,1,2-TETRACHLOROETHANE	ND	ND	ND	ND	ND	ND
TETRACHLOROETHYLENE	ND	ND	ND	ND	ND	ND
1,1,1-TRICHLOROETHANE	ND	ND	ND	ND	ND	ND
1,1,2-TRICHLOROETHANE	ND	ND	ND	ND	ND	ND
TRICHLOROETHYLENE	ND	ND	ND	ND	ND	ND
TRICHLOROFLUOROMETHANE	ND	ND	ND	ND	ND	ND
TRICHLOROPROPANE	ND	ND	ND	ND	ND	ND
VINYL CHLORIDE	ND	ND	ND	ND	ND	ND

ANALYSIS REPORT FOR WORK ORDER NUMBER 500

TASK: 4, UNITS: ug/KG, GROUP 8010

TEST COMPOUND	VF1,B-14,SS-1, 1.0' 88020377	VF1,B-14,SS-2, 3.5' 88020378
BENZYL CHLORIDE	ND	ND
BIS (2-CHLOROETHOXY)METHANE	ND	ND
BIS (2-CHLOROISOPROPYL) ETHER	ND	ND
BROMOBENZENE	ND	ND
BROMODICHLOROMETHANE	ND	ND
BROMOFORM	ND	ND
BROMOETHANE	ND	ND
CARBON TETRACHLORIDE	ND	ND
CHLORACETALDEHYDE	ND	ND
CHLORAL	ND	ND
CHLOROBENZENE	ND	ND
CHLOROETHANE	ND	ND
CHLOROFORM	ND	ND
1-CHLOROHEXANE	ND	ND
2-CHLOROETHYL VINYL ETHER	ND	ND
CHLOROMETHANE	ND	ND
CHLOROMETHYL METHYL ETHER	ND	ND
CHLOROTOLUENE	ND	ND
DIBROMOCHLOROMETHANE	ND	ND
DIBROMOMETHANE	ND	ND
1,2-DICHLOROBENZENE	ND	ND
1,3-DICHLOROBENZENE	ND	ND
1,4-DICHLOROBENZENE	ND	ND
DICHLORODIFLUOROMETHANE	ND	ND
1,1-DICHLOROETHANE	ND	ND
1,2-DICHLOROETHANE	ND	ND
1,1-DICHLOROETHYLENE	ND	ND
TRANS-1,2-DICHLOROETHYLENE	ND	ND
DICHLOROMETHANE	ND	ND
1,2-DICHLOROPROPANE	ND	ND
1,3-DICHLOROPROPYLENE	ND	ND
1,1,2,2-TETRACHLOROETHANE	ND	ND
1,1,1,2-TETRACHLOROETHANE	ND	ND
TETRACHLOROETHYLENE	ND	ND
1,1,1-TRICHLOROETHANE	ND	ND
1,1,2-TRICHLOROETHANE	ND	ND
TRICHLOROETHYLENE	ND	ND
TRICHLOROFLUOROMETHANE	ND	ND
TRICHLOROPROPANE	ND	ND
VINYL CHLORIDE	ND	ND

Detection Limits
Purgeable Halocarbons
EPA 601
Samples No.: 88020371 - 88020378

<u>Compound</u>	<u>Detection Limits</u>
Bromodichloromethane	0.10 ug/Kg
Bromoform	0.20
Bromomethane	1.18
Carbon tetrachloride	0.12
Chlorobenzene	0.25
Chloroethane	0.52
2-Chloroethyl vinyl ether	0.13
Chloroform	0.05
Chloromethane	0.08
Dibromochloromethane	0.09
1,2-Dichlorobenzene	0.18
1,3-Dichlorobenzene	0.32
1,4-Dichlorobenzene	0.24
Dichlorodifluoromethane	1.81
1,1-Dichloroethane	0.07
1,2-Dichloroethane	0.03
1,1-Dichloroethene	0.13
trans-1,2-Dichloroethene	0.10
1,2-Dichloropropane	0.04
cis-1,3-Dichloropropene	0.20
trans-1,3-Dichloropropene	0.34
Methylene chloride	0.25
1,1,2,2-Tetrachloroethane	0.03
Tetrachloroethene	0.03
1,1,1-Trichloroethane	0.03
1,1,2-Trichloroethane	0.02
Trichloroethene	0.12
Trichlorofluoromethane	0.50
Vinyl Chloride	0.18

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

DETECTION LIMITS
 HALOGENATED VOLATILE ORGANICS
 EPA METHOD 8010
 SAMPLES NO.: 88020371-88020378

Compound	Detection Limits
Benzyl chloride	0.50 ug/Kg
bis(2-chloroethoxy)methane	0.50
bis(2-chloroisopropyl)ether	0.50
Bromobenzene	0.50
Bromodichloromethane	0.10
Bromoform	0.20
Bromomethane	0.50
Carbon Tetrachloride	0.12
Chloroacetaldehyde	0.50
Chloral	0.50
Chlorobenzene	0.25
Chloroethane	0.52
Chloroform	0.05
1-Chlorohexane	0.50
2-Chloroethyl vinyl ether	0.13
Chloromethane	0.08
Chloromethyl methyl ether	0.05
O-,m-, & p-Chlorotoluenes	0.50
Dibromochloromethane	0.09
Dibromomethane	0.50
1,2-Dichlorobenzene	0.15
1,3-Dichlorobenzene	0.32
1,4-Dichlorobenzene	0.24
Dichlorodifluoromethane	0.50
1,1-Dichloroethane	0.07
1,2-Dichloroethane	0.03
1,1-Dichloroethylene	0.13
trans-1,2-Dichloroethylene	0.10
Dichloromethane	0.50
1,2-Dichloropropane	0.04
1,3-Dichlorophypropylene	0.34
1,1,2,2-Tetrachloroethane	0.03
1,1,1,2-Tetrachloroethane	0.50
Tetrachloroethylene	0.03
1,1,1-Trichloroethane	0.03
1,1,2-Trichloroethane	0.02
Trichloroethylene	0.12
Trichlorofluoromethane	0.50
Trichloropropane	0.50
Vinyl chloride	0.18

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

ENGINEERING SCIENCE INC.
04/18/88

8-113

ANALYSIS REPORT FOR WORK ORDER NUMBER 530

TASK: 4, UNITS: ug/L, GROUP 601

	VF,2-W1,6W1,ES	VF,1-W4,6W1,ES	VF,1-W5,6W1,ES	VF,2-W2,6W1,ES	VF,1-W1,6W1,ES	VF,3/6-W1,6W1,ES
TEST COMPOUND	88030536	88030537	88030538	88030539	88030540	88030541
BROMODICHLOROMETHANE	ND	ND	ND	ND	ND	ND
BROMOFORM	ND	ND	ND	ND	ND	ND
BROMOMETHANE	ND	ND	ND	ND	ND	ND
CARBON TETRACHLORIDE	ND	ND	ND	ND	ND	ND
CHLOROBENZENE	ND	ND	ND	ND	ND	ND
CHLOROETHANE	ND	ND	ND	ND	ND	ND
2-CHLOROETHYL VINYL ETHER	ND	ND	ND	ND	ND	ND
CHLOROFORM	ND	ND	ND	ND	ND	ND
CHLOROMETHANE	ND	ND	ND	ND	ND	ND
DIBROMOCHLOROMETHANE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,4-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
DICHLORODIFLUOROMETHANE	ND	ND	ND	ND	ND	ND
1,1-DICHLOROETHANE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROETHANE	ND	ND	ND	ND	ND	ND
1,1-DICHLOROETHENE	ND	ND	ND	ND	ND	ND
TRANS-1,2-DICHLOROETHENE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROPROPANE	ND	ND	ND	ND	ND	ND
CIS-1,3-DICHLOROPROPENE	ND	ND	ND	ND	ND	ND
TRANS-1,3-DICHLOROPROPENE	ND	ND	ND	ND	ND	ND
ETHYLENE CHLORIDE	ND	ND	ND	ND	ND	ND
1,1,2,2-TETRACHLOROETHANE	ND	ND	ND	ND	ND	ND
TETRACHLOROETHENE	ND	ND	ND	ND	ND	ND
1,1,1-TRICHLOROETHANE	ND	ND	ND	ND	ND	ND
1,1,2-TRICHLOROETHANE	ND	ND	ND	ND	ND	ND
TRICHLOROETHENE	ND	ND	ND	ND	ND	ND
TRICHLOROFLUOROMETHANE	ND	ND	ND	ND	ND	ND
VINYL CHLORIDE	ND	ND	ND	ND	ND	ND

ANALYSIS REPORT FOR WORK ORDER NUMBER 530

TASK: 4, UNITS: ug/L, GROUP 601

VF, 11-W3, GW1, ES

TEST COMPOUND 88030542

BROMODICHLOROMETHANE	ND
BROMOFORM	ND
BROMOMETHANE	ND
CARBON TETRACHLORIDE	ND
CHLOROBENZENE	ND
CHLOROETHANE	ND
DICHLOROETHYL VINYL ETHER	ND
CHLOROFORM	ND
CHLOROMETHANE	ND
DIBROMODICHLOROMETHANE	ND
1,2-DICHLOROBENZENE	ND
1,3-DICHLOROBENZENE	ND
1,4-DICHLOROBENZENE	ND
DICHLORODIFLUOROMETHANE	ND
1,1-DICHLOROETHANE	ND
1,2-DICHLOROETHANE	ND
1,1-DICHLOROETHENE	ND
TRANS-1,2-DICHLOROETHENE	ND
1,2-DICHLOROPROPANE	ND
CIS-1,3-DICHLOROPROPENE	ND
TRANS-1,3-DICHLOROPROPENE	ND
METHYLENE CHLORIDE	ND
1,1,2,2-TETRACHLOROETHANE	ND
TETRACHLOROETHENE	ND
1,1,1-TRICHLOROETHANE	ND
1,1,2-TRICHLOROETHANE	ND
TRICHLOROETHENE	ND
TRICHLOROFLUOROMETHANE	ND
VINYL CHLORIDE	ND

Detection Limits
Purgeable Halocarbons
EPA 601
Samples No.: 88030536 - 88030542

<u>Compound</u>	<u>Detection Limits</u>
Bromodichloromethane	0.10 ug/L
Bromoform	0.20
Bromomethane	1.18
Carbon tetrachloride	0.12
Chlorobenzene	0.25
Chloroethane	0.52
2-Chloroethyl vinyl ether	0.13
Chloroform	0.05
Chloromethane	0.08
Dibromochloromethane	0.09
1,2-Dichlorobenzene	0.18
1,3-Dichlorobenzene	0.32
1,4-Dichlorobenzene	0.24
Dichlorodifluoromethane	1.81
1,1-Dichloroethane	0.07
1,2-Dichloroethane	0.03
1,1-Dichloroethene	0.13
trans-1,2-Dichloroethene	0.10
1,2-Dichloropropane	0.04
cis-1,3-Dichloropropene	0.20
trans-1,3-Dichloropropene	0.34
Methylene chloride	0.25
1,1,2,2-Tetrachloroethane	0.03
Tetrachloroethene	0.03
1,1,1-Trichloroethane	0.03
1,1,2-Trichloroethane	0.02
Trichloroethene	0.12
Trichlorofluoromethane	0.50
Vinyl Chloride	0.18

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

ENGINEERING SCIENCE INC.
04/18/88

PAGE 7

ANALYSIS REPORT FOR WORK ORDER NUMBER 538

TASK: 4, UNITS: ug/L, GROUP 601

	VF,ET-5,SW1,ES	VF,ET-4,SW1,ES	VF,13-W1,SW1,ES	VF,ET-7,SW1,ES	VF,ET-6,SW1,ES	VF,11-W6,SW1,ES
TEST COMPOUND	88030572	88030573	88030574	88030575	88030576	88030577
BROMODICHLOROMETHANE	ND	ND	ND	ND	ND	ND
BROMOFORM	ND	ND	ND	ND	ND	ND
BROMOMETHANE	ND	ND	ND	ND	ND	ND
CARBON TETRACHLORIDE	ND	ND	ND	ND	ND	ND
CHLOROBENZENE	ND	ND	ND	ND	ND	ND
CHLOROETHANE	ND	ND	ND	ND	ND	ND
2-CHLOROETHYL VINYL ETHER	ND	ND	ND	ND	ND	ND
CHLOROFORM	ND	ND	ND	ND	ND	ND
CHLOROMETHANE	ND	ND	ND	ND	ND	ND
DIBROMOCHLOROMETHANE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,4-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
DICHLORODIFLUOROMETHANE	ND	ND	ND	ND	ND	ND
1,1-DICHLOROETHANE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROETHANE	ND	ND	ND	ND	ND	ND
1,1-DICHLOROETHENE	ND	ND	ND	ND	ND	ND
TRANS-1,2-DICHLOROETHENE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROPROPANE	ND	ND	ND	ND	ND	ND
CIS-1,3-DICHLOROPROPENE	ND	ND	ND	ND	ND	ND
TRANS-1,3-DICHLOROPROPENE	1.5	ND	ND	ND	ND	ND
METHYLENE CHLORIDE	ND	ND	ND	ND	ND	ND
1,1,2,2-TETRACHLOROETHANE	ND	ND	ND	ND	ND	ND
TETRACHLOROETHENE	ND	ND	ND	ND	ND	ND
1,1,1-TRICHLOROETHANE	60	ND	ND	ND	ND	ND
1,1,2-TRICHLOROETHANE	ND	ND	ND	ND	ND	ND
TRICHLOROETHENE	6.5	0.7	ND	1.6	ND	ND
TRICHLOROFLUOROMETHANE	ND	ND	ND	ND	ND	ND
VINYL CHLORIDE	ND	ND	ND	ND	ND	ND

2ND COLUMN CONFIRMATION DATA

4-21-88

WORK ORDER NUMBER 538

TASK: 4, UNITS: ug/L, GROUP 601

88030572

VF, ET-5, GW1, ES

TEST COMPOUND	Analysis Results	
	Col 1	Col 2
BROMODICHLOROMETHANE	ND	ND
BROMOFORM	ND	ND
BROMOETHANE	ND	ND
CARBON TETRACHLORIDE	ND	ND
CHLOROBENZENE	ND	ND
CHLOROETHANE	ND	ND
2-CHLOROETHYL VINYL ETHER	ND	ND
CHLOROFORM	ND	ND
CHLOROMETHANE	ND	ND
DIBROMOCHLOROMETHANE	ND	ND
1,2-DICHLOROBENZENE	ND	ND
1,3-DICHLOROBENZENE	ND	ND
1,4-DICHLOROBENZENE	ND	ND
DICHLORODIFLUOROMETHANE	ND	ND
1,1-DICHLOROETHANE	ND	ND
1,2-DICHLOROETHANE	ND	ND
1,1-DICHLOROETHENE	ND	ND
TRANS-1,2-DICHLOROETHENE	ND	ND
1,2-DICHLOROPROPANE	ND	ND
CIS-1,3-DICHLOROPROPENE	ND	ND
TRANS-1,3-DICHLOROPROPENE	1.5	5.0
METHYLENE CHLORIDE	ND	ND
1,1,2,2-TETRACHLOROETHANE	ND	ND
TETRACHLOROETHENE	ND	ND
1,1,1-TRICHLOROETHANE	60	26
1,1,2-TRICHLOROETHANE	ND	ND
TRICHLOROETHENE	6.5	5.2
TRICHLOROFLUOROMETHANE	ND	ND
VINYL CHLORIDE	ND	ND

2ND COLUMN CONFIRMATION DATA

4-21-88

WORK ORDER NUMBER 538

TASK: 4, UNITS: ug/L, GROUP 601

88030573

VF, ET-4, GW1, ES

TEST COMPOUND	Analysis Results	
	Col 1	Col 2
BROMODICHLOROMETHANE	ND	ND
BROMOFORM	ND	ND
BROMOETHANE	ND	ND
CARBON TETRACHLORIDE	ND	ND
CHLOROBENZENE	ND	ND
CHLOROETHANE	ND	ND
2-CHLOROETHYL VINYL ETHER	ND	ND
CHLOROFORM	ND	ND
CHLOROMETHANE	ND	ND
DIBROMOCHLOROMETHANE	ND	ND
1,2-DICHLOROBENZENE	ND	ND
1,3-DICHLOROBENZENE	ND	ND
1,4-DICHLOROBENZENE	ND	ND
DICHLORODIFLUOROMETHANE	ND	ND
1,1-DICHLOROETHANE	ND	ND
1,2-DICHLOROETHANE	ND	ND
1,1-DICHLOROETHENE	ND	ND
TRANS-1,2-DICHLOROETHENE	ND	ND
1,2-DICHLOROPROPANE	ND	ND
CIS-1,3-DICHLOROPROPENE	ND	ND
TRANS-1,3-DICHLOROPROPENE	ND	ND
METHYLENE CHLORIDE	ND	ND
1,1,2,2-TETRACHLOROETHANE	ND	ND
TETRACHLOROETHENE	0.7	0.7
1,1,1-TRICHLOROETHANE	ND	ND
1,1,2-TRICHLOROETHANE	ND	ND
TRICHLOROETHENE	ND	ND
TRICHLOROFLUOROMETHANE	ND	ND
VINYL CHLORIDE	ND	ND

2ND COLUMN CONFIRMATION DATA

4-21-88

WORK ORDER NUMBER 538

TASK: 4, UNITS: ug/L, GROUP 601

88030575

VF, ET-7, GW1, ES

TEST COMPOUND	Analysis Results	
	Col 1	Col 2
BROMODICHLOROMETHANE	ND	ND
BROMOFORM	ND	ND
BROMOETHANE	ND	ND
CARBON TETRACHLORIDE	ND	ND
CHLOROBENZENE	ND	ND
CHLOROETHANE	ND	ND
2-CHLOROETHYL VINYL ETHER	ND	ND
CHLOROFORM	ND	ND
CHLOROMETHANE	ND	ND
DIBROMOCHLOROMETHANE	ND	ND
1,2-DICHLOROBENZENE	ND	ND
1,3-DICHLOROBENZENE	ND	ND
1,4-DICHLOROBENZENE	ND	ND
DICHLORODIFLUOROMETHANE	ND	ND
1,1-DICHLOROETHANE	ND	ND
1,2-DICHLOROETHANE	ND	ND
1,1-DICHLOROETHENE	ND	ND
TRANS-1,2-DICHLOROETHENE	ND	ND
1,2-DICHLOROPROPANE	ND	ND
CIS-1,3-DICHLOROPROPENE	ND	ND
TRANS-1,3-DICHLOROPROPENE	ND	ND
METHYLENE CHLORIDE	ND	ND
1,1,2,2-TETRACHLOROETHANE	ND	ND
TETRACHLOROETHENE	ND	ND
1,1,1-TRICHLOROETHANE	ND	ND
1,1,2-TRICHLOROETHANE	ND	ND
TRICHLOROETHENE	1.6	1.3
TRICHLOROFLUOROMETHANE	ND	ND
VINYL CHLORIDE	ND	ND

Detection Limits
Purgeable Halocarbons
EPA 601
Samples No.: 88030572 - 88030577

<u>Compound</u>	<u>Detection Limits</u>
Bromodichloromethane	0.10 ug/L
Bromoform	0.20
Bromomethane	1.18
Carbon tetrachloride	0.12
Chlorobenzene	0.25
Chloroethane	0.52
2-Chloroethyl vinyl ether	0.13
Chloroform	0.05
Chloromethane	0.08
Dibromochloromethane	0.09
1,2-Dichlorobenzene	0.18
1,3-Dichlorobenzene	0.32
1,4-Dichlorobenzene	0.24
Dichlorodifluoromethane	1.81
1,1-Dichloroethane	0.07
1,2-Dichloroethane	0.03
1,1-Dichloroethene	0.13
trans-1,2-Dichloroethene	0.10
1,2-Dichloropropane	0.04
cis-1,3-Dichloropropene	0.20
trans-1,3-Dichloropropene	0.34
Methylene chloride	0.25
1,1,2,2-Tetrachloroethane	0.03
Tetrachloroethene	0.03
1,1,1-Trichloroethane	0.03
1,1,2-Trichloroethane	0.02
Trichloroethene	0.12
Trichlorofluoromethane	0.50
Vinyl Chloride	0.18

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

04/18/88

ANALYSIS REPORT FOR WORK ORDER NUMBER 534

TASK: 4, UNITS: ug/L, GROUP 601

	VF,2-W5,6W1,ES	VF,2-1,SW1,ES	VF,2-2,SW1,ES	VF,1-W3,6W1,ES	VF,10-W1,6W1,ES	VF,2-W3,6W1,ES
TEST COMPOUND	88030551	88030552	88030553	88030554	88030555	88030556
BROMODICHLOROMETHANE	ND	ND	ND	ND	ND	ND
BROMOFORM	ND	ND	ND	ND	ND	ND
BROMOMETHANE	ND	ND	ND	ND	ND	ND
CARBON TETRACHLORIDE	ND	ND	ND	ND	ND	ND
CHLOROBENZENE	ND	ND	ND	ND	ND	ND
CHLOROETHANE	ND	ND	ND	ND	ND	ND
2-CHLOROETHYL VINYL ETHER	ND	ND	ND	ND	ND	ND
CHLOROFORM	ND	ND	ND	ND	ND	ND
CHLOROMETHANE	ND	ND	ND	ND	ND	ND
DIBROMOCHLOROMETHANE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,4-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
DICHLORODIFLUOROMETHANE	ND	ND	ND	ND	ND	ND
1,1-DICHLOROETHANE	ND	ND	ND	1.6	ND	ND
1,2-DICHLOROETHANE	ND	ND	ND	ND	ND	ND
1,1-DICHLOROETHENE	ND	ND	ND	ND	ND	ND
TRANS-1,2-DICHLOROETHENE	ND	ND	ND	4.5	ND	ND
1,2-DICHLOROPROPANE	ND	ND	ND	ND	ND	ND
CIS-1,3-DICHLOROPROPENE	ND	ND	ND	ND	ND	ND
TRANS-1,3-DICHLOROPROPENE	ND	ND	ND	ND	ND	ND
METHYLENE CHLORIDE	ND	ND	ND	ND	ND	ND
1,1,2,2-TETRACHLOROETHANE	ND	ND	ND	ND	ND	ND
TETRACHLOROETHENE	ND	ND	ND	ND	ND	ND
1,1,1-TRICHLOROETHANE	ND	ND	ND	ND	ND	ND
1,1,2-TRICHLOROETHANE	ND	ND	ND	ND	ND	ND
TRICHLOROETHENE	ND	ND	ND	13.1	ND	ND
TRICHLOROFLUOROMETHANE	ND	ND	ND	ND	ND	ND
VINYL CHLORIDE	ND	ND	ND	ND	ND	ND

ENGINEERING SCIENCE INC.
04/18/88

PAGE 1

ANALYSIS REPORT FOR WORK ORDER NUMBER 534

TASK: 4, UNITS: ug/L, GROUP 601

	VF,2-W4,6M1,ES	VF,10-W2,6M1,ES	VF,10-W3,6M1,ES	VF,10-W5,6M1,ES	VF,10-W4,6M1,ES	VF,12-W2,6M1,ES
TEST COMPOUND	88030557	88030558	88030559	88030560	88030561	88030562
BROMODICHLOROMETHANE	ND	ND	ND	ND	ND	ND
BROMOFORM	ND	ND	ND	ND	ND	ND
BROMOMETHANE	ND	ND	ND	ND	ND	ND
CARBON TETRACHLORIDE	ND	ND	ND	ND	ND	ND
CHLORO BENZENE	ND	ND	ND	ND	ND	ND
CHLOROETHANE	ND	ND	ND	ND	ND	ND
2-CHLOROETHYL VINYL ETHER	ND	ND	ND	ND	ND	ND
CHLOROFORM	ND	ND	ND	ND	ND	ND
CHLOROMETHANE	ND	ND	ND	ND	ND	ND
DIBROMOCHLOROMETHANE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,4-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
DICHLORODIFLUOROMETHANE	ND	ND	ND	ND	ND	ND
1,1-DICHLOROETHANE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROETHANE	ND	ND	ND	ND	ND	ND
1,1-DICHLOROETHENE	ND	ND	ND	ND	ND	ND
TRANS-1,2-DICHLOROETHENE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROPROPANE	ND	ND	ND	ND	ND	ND
CIS-1,3-DICHLOROPROPENE	ND	ND	ND	ND	ND	ND
TRANS-1,3-DICHLOROPROPENE	ND	ND	ND	ND	ND	ND
ETHYLENE CHLORIDE	ND	ND	ND	ND	ND	ND
1,1,2,2-TETRACHLOROETHANE	ND	ND	ND	ND	ND	ND
TETRACHLOROETHENE	ND	ND	ND	ND	ND	ND
1,1,1-TRICHLOROETHANE	ND	ND	ND	ND	ND	ND
1,1,2-TRICHLOROETHANE	ND	ND	ND	ND	ND	ND
TRICHLOROETHENE	ND	ND	ND	ND	ND	ND
TRICHLOROFLUOROMETHANE	ND	ND	ND	ND	ND	ND
VINYL CHLORIDE	ND	ND	ND	ND	ND	ND

ENGINEERING SCIENCE INC.
04/18/88

PAGE 1

ANALYSIS REPORT FOR WORK ORDER NUMBER 534

TASK: 4, UNITS: ug/L, GROUP 601

VF, 11-W4, GW1, ES

TEST COMPOUND

88030563

BROMODICHLOROMETHANE	ND
BROMOFORM	ND
BROMOMETHANE	ND
CARBON TETRACHLORIDE	ND
CHLOROBENZENE	ND
CHLOROETHANE	ND
2-CHLOROETHYL VINYL ETHER	ND
CHLOROFORM	ND
CHLOROMETHANE	ND
DIBROMODICHLOROMETHANE	ND
1,2-DICHLOROBENZENE	ND
1,3-DICHLOROBENZENE	ND
1,4-DICHLOROBENZENE	ND
DICHLORODIFLUOROMETHANE	ND
1,1-DICHLOROETHANE	ND
1,2-DICHLOROETHANE	ND
1,1-DICHLOROETHENE	ND
TRANS-1,2-DICHLOROETHENE	ND
1,2-DICHLOROPROPANE	ND
CIS-1,3-DICHLOROPROPENE	ND
TRANS-1,3-DICHLOROPROPENE	ND
METHYLENE CHLORIDE	ND
1,1,2,2-TETRACHLOROETHANE	ND
TETRACHLOROETHENE	ND
1,1,1-TRICHLOROETHANE	ND
1,1,2-TRICHLOROETHANE	ND
TRICHLOROETHENE	ND
TRICHLOROFLUOROMETHANE	ND
VINYL CHLORIDE	ND

2ND COLUMN CONFIRMATION DATA
4-21-88
WORK ORDER NUMBER 534

TASK: 4, UNITS: ug/L, GROUP 601

88030554
VF, 1-W3, GW1, ES

TEST COMPOUND	Analysis Results	
	Col 1	Col 2
BROMODICHLOROMETHANE	ND	ND
BROMOFORM	ND	ND
BROMOETHANE	ND	ND
CARBON TETRACHLORIDE	ND	ND
CHLOROBENZENE	ND	ND
CHLOROETHANE	ND	ND
2-CHLOROETHYL VINYL ETHER	ND	ND
CHLOROFORM	ND	ND
CHLOROMETHANE	ND	ND
DIBROMOCHLOROMETHANE	ND	ND
1,2-DICHLOROBENZENE	ND	ND
1,3-DICHLOROBENZENE	ND	ND
1,4-DICHLOROBENZENE	ND	ND
DICHLORODIFLUOROMETHANE	ND	ND
1,1-DICHLOROETHANE	1.6	1.4
1,2-DICHLOROETHANE	ND	ND
1,1-DICHLOROETHENE	ND	ND
TRANS-1,2-DICHLOROETHENE	4.5	3.5
1,2-DICHLOROPROPANE	ND	ND
CIS-1,3-DICHLOROPROPENE	ND	ND
TRANS-1,3-DICHLOROPROPENE	ND	ND
METHYLENE CHLORIDE	ND	ND
1,1,2,2-TETRACHLOROETHANE	ND	ND
TETRACHLOROETHENE	ND	ND
1,1,1-TRICHLOROETHANE	ND	ND
1,1,2-TRICHLOROETHANE	ND	ND
TRICHLOROETHENE	13.1	17.3
TRICHLOROFLUOROMETHANE	ND	ND
VINYL CHLORIDE	ND	ND

Detection Limits
Purgeable Halocarbons
EPA 601
Samples No.: 88030551 - 88030563

<u>Compound</u>	<u>Detection Limits</u>
Bromodichloromethane	0.10 ug/L
Bromoform	0.20
Bromomethane	1.18
Carbon tetrachloride	0.12
Chlorobenzene	0.25
Chloroethane	0.52
2-Chloroethyl vinyl ether	0.13
Chloroform	0.05
Chloromethane	0.08
Dibromochloromethane	0.09
1,2-Dichlorobenzene	0.18
1,3-Dichlorobenzene	0.32
1,4-Dichlorobenzene	0.24
Dichlorodifluoromethane	1.81
1,1-Dichloroethane	0.07
1,2-Dichloroethane	0.03
1,1-Dichloroethene	0.13
trans-1,2-Dichloroethene	0.10
1,2-Dichloropropane	0.04
cis-1,3-Dichloropropene	0.20
trans-1,3-Dichloropropene	0.34
Methylene chloride	0.25
1,1,2,2-Tetrachloroethane	0.03
Tetrachloroethene	0.03
1,1,1-Trichloroethane	0.03
1,1,2-Trichloroethane	0.02
Trichloroethene	0.12
Trichlorofluoromethane	0.50
Vinyl Chloride	0.18

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

ENGINEERING SCIENCE INC.
04/18/88

PAGE 2

ANALYSIS REPORT FOR WORK ORDER NUMBER 536

TASK: 4, UNITS: ug/L, GROUP 601

	VF,12-W3,SW1,ES	VF,1-W2,SW1,ES	VF,ET-1,SW1,ES	VF,ET-2,SW1,ES	VF,ET-3,SW1,ES	VF,11-W5,SW1,ES
TEST COMPOUND	88030565	88030566	88030567	88030568	88030569	88030570
BROMODICHLOROMETHANE	ND	ND	ND	ND	ND	ND
BROMOFORM	ND	ND	ND	ND	ND	ND
BROMOMETHANE	ND	ND	ND	ND	ND	ND
CARBON TETRACHLORIDE	ND	ND	ND	ND	ND	ND
CHLOROBENZENE	ND	ND	ND	ND	ND	ND
CHLOROETHANE	ND	ND	ND	ND	ND	ND
2-CHLOROETHYL VINYL ETHER	ND	ND	ND	ND	ND	ND
CHLOROFORM	ND	ND	ND	ND	ND	ND
CHLOROMETHANE	ND	ND	ND	ND	ND	ND
DIBROMOCHLOROMETHANE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,4-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
DICHLORODIFLUOROMETHANE	ND	ND	ND	ND	ND	ND
1,1-DICHLOROETHANE	ND	ND	ND	ND	12	ND
1,2-DICHLOROETHANE	ND	ND	ND	ND	ND	ND
1,1-DICHLOROETHENE	ND	ND	ND	ND	ND	ND
TRANS-1,2-DICHLOROETHENE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROPROPANE	ND	ND	ND	ND	ND	ND
CIS-1,3-DICHLOROPROPENE	ND	ND	ND	ND	ND	ND
TRANS-1,3-DICHLOROPROPENE	ND	ND	ND	ND	10	ND
METHYLENE CHLORIDE	ND	ND	ND	ND	ND	ND
1,1,2,2-TETRACHLOROETHANE	ND	ND	ND	ND	ND	ND
TETRACHLOROETHENE	ND	ND	ND	ND	ND	ND
1,1,1-TRICHLOROETHANE	ND	ND	ND	ND	ND	ND
1,1,2-TRICHLOROETHANE	ND	ND	ND	ND	ND	ND
TRICHLOROETHENE	ND	0.9	ND	ND	79	ND
TRICHLOROFLUOROMETHANE	ND	ND	ND	ND	ND	ND
VINYL CHLORIDE	ND	ND	ND	ND	ND	ND

2ND COLUMN CONFIRMATION DATA
4-21-88
WORK ORDER NUMBER 536

TASK: 4, UNITS: ug/L, GROUP 601

88030566
VF,1-W2,GW1,ES

TEST COMPOUND	Analysis Results	
	Col 1	Col 2
BROMODICHLOROMETHANE	ND	ND
BROMOFORM	ND	ND
BROMOETHANE	ND	ND
CARBON TETRACHLORIDE	ND	ND
CHLOROBENZENE	ND	ND
CHLOROETHANE	ND	ND
2-CHLOROETHYL VINYL ETHER	ND	ND
CHLOROFORM	ND	ND
CHLOROMETHANE	ND	ND
DIBROMOCHLOROMETHANE	ND	ND
1,2-DICHLOROBENZENE	ND	ND
1,3-DICHLOROBENZENE	ND	ND
1,4-DICHLOROBENZENE	ND	ND
DICHLORODIFLUOROMETHANE	ND	ND
1,1-DICHLOROETHANE	ND	ND
1,2-DICHLOROETHANE	ND	ND
1,1-DICHLOROETHENE	ND	ND
TRANS-1,2-DICHLOROETHENE	ND	ND
1,2-DICHLOROPROPANE	ND	ND
CIS-1,3-DICHLOROPROPENE	ND	ND
TRANS-1,3-DICHLOROPROPENE	ND	ND
METHYLENE CHLORIDE	ND	ND
1,1,2,2-TETRACHLOROETHANE	ND	ND
TETRACHLOROETHENE	ND	ND
1,1,1-TRICHLOROETHANE	ND	ND
1,1,2-TRICHLOROETHANE	ND	ND
TRICHLOROETHENE	0.9	1.2
TRICHLOROFLUOROMETHANE	ND	ND
VINYL CHLORIDE	ND	ND

2ND COLUMN CONFIRMATION DATA

4-21-88

WORK ORDER NUMBER 536

TASK: 4, UNITS: ug/L, GROUP 601

88030569

VF, ET-3, GW1, ES

TEST COMPOUND	Analysis Results	
	Col 1	Col 2
BROMODICHLOROMETHANE	ND	ND
BROMOFORM	ND	ND
BROMOETHANE	ND	ND
CARBON TETRACHLORIDE	ND	ND
CHLOROBENZENE	ND	ND
CHLOROETHANE	ND	ND
2-CHLOROETHYL VINYL ETHER	ND	ND
CHLOROFORM	ND	ND
CHLOROMETHANE	ND	ND
DIBROMOCHLOROMETHANE	ND	ND
1,2-DICHLOROBENZENE	ND	ND
1,3-DICHLOROBENZENE	ND	ND
1,4-DICHLOROBENZENE	ND	ND
DICHLORODIFLUOROMETHANE	ND	ND
1,1-DICHLOROETHANE	12	3.3
1,2-DICHLOROETHANE	ND	ND
1,1-DICHLOROETHENE	ND	ND
TRANS-1,2-DICHLOROETHENE	ND	ND
1,2-DICHLOROPROPANE	ND	ND
CIS-1,3-DICHLOROPROPENE	ND	ND
TRANS-1,3-DICHLOROPROPENE	10	2.0
METHYLENE CHLORIDE	ND	ND
1,1,2,2-TETRACHLOROETHANE	ND	ND
TETRACHLOROETHENE	ND	ND
1,1,1-TRICHLOROETHANE	ND	ND
1,1,2-TRICHLOROETHANE	ND	ND
TRICHLOROETHENE	79	42
TRICHLOROFLUOROMETHANE	ND	ND
VINYL CHLORIDE	ND	ND

Detection Limits
Purgeable Halocarbons
EPA 601
Samples No.: 88030565 - 88030570

<u>Compound</u>	<u>Detection Limits</u>
Bromodichloromethane	0.10 ug/L
Bromoform	0.20
Bromomethane	1.18
Carbon tetrachloride	0.12
Chlorobenzene	0.25
Chloroethane	0.52
2-Chloroethyl vinyl ether	0.13
Chloroform	0.05
Chloromethane	0.08
Dibromochloromethane	0.09
1,2-Dichlorobenzene	0.18
1,3-Dichlorobenzene	0.32
1,4-Dichlorobenzene	0.24
Dichlorodifluoromethane	1.81
1,1-Dichloroethane	0.07
1,2-Dichloroethane	0.03
1,1-Dichloroethene	0.13
trans-1,2-Dichloroethene	0.10
1,2-Dichloropropane	0.04
cis-1,3-Dichloropropene	0.20
trans-1,3-Dichloropropene	0.34
Methylene chloride	0.25
1,1,2,2-Tetrachloroethane	0.03
Tetrachloroethene	0.03
1,1,1-Trichloroethane	0.03
1,1,2-Trichloroethane	0.02
Trichloroethene	0.12
Trichlorofluoromethane	0.50
Vinyl Chloride	0.18

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

ANALYSIS REPORT

WORK ORDER NUMBER: 732
JOB NUMBER : ZB0000000400
WORK ORDER DATE : 07/08/88

APPROVED BY _____
Lab Supervisor

REPORT DATA:
ES ATLANTA/VOLK FIELD ANGB
57 EXECUTIVE PARK STE. 590
ATLANTA, GA 30329
DAN LANE

CLIENT DATA:
ES ATLANTA/VOLK FIELD ANGB (85)
57 EXECUTIVE PARK STE. 590
ATLANTA, GA 30329

OF REPORT COPIES: 1

CONTRACT / PO # : AT077
CONTACT : DAN LANE
(404)-325-0770

TASK: 4, UNITS: ug/L, GROUP 601

TEST COMPOUND	VF 950	GW-1 ES	TRIP BLANK	VF 934	GW-1 ES	VF 916	GW-1 ES
	7-7-88 1140	7-7-88 1203		7-7-88 1215	7-7-88 1250		
	88071335	88071336		88071337	88071338		
BROMODICHLOROMETHANE	ND	ND		ND	ND		
BROMOFORM	ND	ND		ND	ND		
BROMOMETHANE	ND	ND		ND	ND		
CARBON TETRACHLORIDE	ND	ND		ND	ND		
CHLOROBENZENE	ND	ND		ND	ND		
CHLOROETHANE	ND	ND		ND	ND		
2-CHLOROETHYL VINYL ETHER	ND	ND		ND	ND		
CHLOROFORM	ND	ND		ND	ND		
CHLOROMETHANE	ND	ND		ND	ND		
DIBROMOCHLOROMETHANE	ND	ND		ND	ND		
1,2-DICHLOROBENZENE	ND	ND		ND	ND		
1,3-DICHLOROBENZENE	ND	ND		ND	ND		
1,4-DICHLOROBENZENE	ND	ND		ND	ND		
DICHLOROFLUOROMETHANE	ND	ND		ND	ND		
1,1-DICHLOROETHANE	ND	ND		ND	ND		
1,2-DICHLOROETHANE	ND	ND		ND	ND		
1,1-DICHLOROETHENE	ND	ND		ND	ND		
TRANS-1,2-DICHLOROETHENE	ND	ND		ND	ND		
1,2-DICHLOROPROPANE	ND	ND		ND	ND		
CIS-1,3-DICHLOROPROPENE	ND	ND		ND	ND		
TRANS-1,3-DICHLOROPROPENE	ND	ND		ND	ND		
METHYLENE CHLORIDE	1.58	5.68		1.98	1.78		
1,1,2,2-TETRACHLOROETHANE	ND	ND		ND	ND		
TETRACHLOROETHENE	ND	ND		ND	ND		
1,1,1-TRICHLOROETHANE	ND	ND		ND	ND		
1,1,2-TRICHLOROETHANE	ND	ND		ND	ND		
TRICHLOROETHENE	ND	ND		ND	ND		
TRICHLOROFLUOROMETHANE	ND	ND		ND	ND		
VINYL CHLORIDE	ND	ND		ND	ND		

ND - Not Detected

LEGEND FOR ORGANIC RESULT QUALIFIERS

- U The compound was analyzed for but not detected.
- J The value reported is an estimated concentration. This is used when the compound is detected at an amount less than the quantitation limit.
- C This is used for pesticide results where identification has been confirmed by GC/MS.
- B The analyte is found in the associated blank as well as in the sample.
- A A TIC is a suspected aldol-condensation product.

DETECTION LIMITS
PURGEABLE HALOCARBONS
EPA METHOD 601
SAMPLES NO.: 88071335-88071338

Compound	Detection Limits
Bromodichloromethane	0.10 ug/L
Bromoform	0.20 ug/L
Bromomethane	1.2 ug/L
Carbon Tetrachloride	0.12 ug/L
Chlorobenzene	0.25 ug/L
Chloroethane	0.52 ug/L
2-Chloroethyl vinyl ether	0.13 ug/L
Chloroform	0.05 ug/L
Chloromethane	0.08 ug/L
Dibromochloromethane	0.09 ug/L
1,2-Dichlorobenzene	0.15 ug/L
1,3-Dichlorobenzene	0.32 ug/L
1,4-Dichlorobenzene	0.24 ug/L
Dichlorodifluoromethane	1.81 ug/L
1,1-Dichloroethane	0.07 ug/L
1,2-Dichloroethane	0.03 ug/L
1,1-Dichloroethene	0.13 ug/L
trans-1,2-Dichloroethene	0.10 ug/L
1,2-Dichloropropane	0.04 ug/L
cis-1,3-Dichloropropene	0.20 ug/L
trans-1,3-Dichloropropene	0.34 ug/L
Methylene chloride	0.25 ug/L
1,1,2,2-Tetrachloroethane	0.03 ug/L
Tetrachloroethene	0.03 ug/L
1,1,1-Trichloroethane	0.03 ug/L
1,1,2-Trichloroethane	0.02 ug/L
Trichloroethene	0.12 ug/L
Trichlorofluoromethane	0.50 ug/L
Vinyl Chloride	0.18 ug/L

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

2ND COLUMN CONFIRMATION DATA
7-22-88
WORK ORDER NUMBER 732

TASK: 4, UNITS: ug/L, GROUP 601

Sample No.: 88071335

TEST COMPOUND	Analysis Results	
	Col 1	Col 2
Bromodichloromethane	ND	ND
Bromoform	ND	ND
Bromomethane	ND	ND
Carbon tetrachloride	ND	ND
Chlorobenzene	ND	ND
Chloroethane	ND	ND
2-Chloroethyl vinyl ether	ND	ND
Chloroform	ND	ND
Chloromethane	ND	ND
Dibromochloromethane	ND	ND
1,2-Dichlorobenzene	ND	ND
1,3-Dichlorobenzene	ND	ND
1,4-Dichlorobenzene	ND	ND
Dichlorodifluoromethane	ND	ND
1,1-Dichloroethane	ND	ND
1,2-Dichloroethane	ND	ND
1,1-Dichloroethene	ND	ND
trans-1,2-Dichloroethene	ND	ND
1,2-Dichloropropane	ND	ND
cis-1,3-Dichloropropene	ND	ND
trans-1,3-Dichloropropene	ND	ND
Methylene chloride	1.5B	0.25B
1,1,2,2-Tetrachloroethane	ND	ND
Tetrachloroethane	ND	ND
1,1,1-Trichloroethane	ND	ND
1,1,2-Trichloroethane	ND	ND
Trichloroethene	ND	ND
Trichlorofluoromethane	ND	ND
Vinyl chloride	ND	ND

2ND COLUMN CONFIRMATION DATA
7-22-88
WORK ORDER NUMBER 732

TASK: 4, UNITS: ug/L, GROUP 601

Sample No.: 88071336

TEST COMPOUND	Analysis Results	
	Col 1	Col 2
Bromodichloromethane	ND	ND
Bromoform	ND	ND
Bromomethane	ND	ND
Carbon tetrachloride	ND	ND
Chlorobenzene	ND	ND
Chloroethane	ND	ND
2-Chloroethyl vinyl ether	ND	ND
Chloroform	ND	ND
Chloromethane	ND	ND
Dibromochloromethane	ND	ND
1,2-Dichlorobenzene	ND	ND
1,3-Dichlorobenzene	ND	ND
1,4-Dichlorobenzene	ND	ND
Dichlorodifluoromethane	ND	ND
1,1-Dichloroethane	ND	ND
1,2-Dichloroethane	ND	ND
1,1-Dichloroethene	ND	ND
trans-1,2-Dichloroethene	ND	ND
1,2-Dichloropropane	ND	ND
cis-1,3-Dichloropropene	ND	ND
trans-1,3-Dichloropropene	ND	ND
Methylene chloride	5.6 B	1.2 B
1,1,2,2-Tetrachloroethane	ND	ND
Tetrachloroethane	ND	ND
1,1,1-Trichloroethane	ND	ND
1,1,2-Trichloroethane	ND	ND
Trichloroethene	ND	ND
Trichlorofluoromethane	ND	ND
Vinyl chloride	ND	ND

2ND COLUMN CONFIRMATION DATA
7-22-88
WORK ORDER NUMBER 732

TASK: 4, UNITS: ug/L, GROUP 601

Sample No.: 88071337

TEST COMPOUND	Analysis Results	
	Col 1	Col 2
Bromodichloromethane	ND	ND
Bromoform	ND	ND
Bromomethane	ND	ND
Carbon tetrachloride	ND	ND
Chlorobenzene	ND	ND
Chloroethane	ND	ND
2-Chloroethyl vinyl ether	ND	ND
Chloroform	ND	ND
Chloromethane	ND	ND
Dibromochloromethane	ND	ND
1,2-Dichlorobenzene	ND	ND
1,3-Dichlorobenzene	ND	ND
1,4-Dichlorobenzene	ND	ND
Dichlorodifluoromethane	ND	ND
1,1-Dichloroethane	ND	ND
1,2-Dichloroethane	ND	ND
1,1-Dichloroethene	ND	ND
trans-1,2-Dichloroethene	ND	ND
1,2-Dichloropropane	ND	ND
cis-1,3-Dichloropropene	ND	ND
trans-1,3-Dichloropropene	ND	ND
Methylene chloride	1.9B	0.29B
1,1,2,2-Tetrachloroethane	ND	ND
Tetrachloroethane	ND	ND
1,1,1-Trichloroethane	ND	ND
1,1,2-Trichloroethane	ND	ND
Trichloroethene	ND	ND
Trichlorofluoromethane	ND	ND
Vinyl chloride	ND	ND

2ND COLUMN CONFIRMATION DATA
7-22-88
WORK ORDER NUMBER 732

TASK: 4, UNITS: ug/L, GROUP 601

Sample No.: 88071338

TEST COMPOUND	Analysis Results	
	Col 1	Col 2
Bromodichloromethane	ND	ND
Bromoform	ND	ND
Bromomethane	ND	ND
Carbon tetrachloride	ND	ND
Chlorobenzene	ND	ND
Chloroethane	ND	ND
2-Chloroethyl vinyl ether	ND	ND
Chloroform	ND	ND
Chloromethane	ND	ND
Dibromochloromethane	ND	ND
1,2-Dichlorobenzene	ND	ND
1,3-Dichlorobenzene	ND	ND
1,4-Dichlorobenzene	ND	ND
Dichlorodifluoromethane	ND	ND
1,1-Dichloroethane	ND	ND
1,2-Dichloroethane	ND	ND
1,1-Dichloroethene	ND	ND
trans-1,2-Dichloroethene	ND	ND
1,2-Dichloropropane	ND	ND
cis-1,3-Dichloropropene	ND	ND
trans-1,3-Dichloropropene	ND	ND
Methylene chloride	1.7 B	0.89 B
1,1,2,2-Tetrachloroethane	ND	ND
Tetrachloroethane	ND	ND
1,1,1-Trichloroethane	ND	ND
1,1,2-Trichloroethane	ND	ND
Trichloroethene	ND	ND
Trichlorofluoromethane	ND	ND
Vinyl chloride	ND	ND

**ANALYTICAL RESULTS FOR
AROMATIC VOLATILE ORGANICS**

04/18/88

ANALYSIS REPORT FOR WORK ORDER NUMBER 467

TASK: 4, UNITS: ug/KG, GROUP 9020

TEST COMPOUND	VF1,B-3,SS-3, 8.5'	VF1,B-21,SS-1, 1.0'	VF1,B-22,SS-1, 0.5'	VF1,B-4,SS-1, 0.5'	VF1,B-1,SS-1, 0.5'	VF1,B-1,SS-2, 3.5'
	88010186	88010187	88010188	88010189	88010190	88010191
BENZENE	ND	ND	170	2,000	16,000	6,500
CHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,4-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
ETHYL BENZENE	ND	ND	1,100	4,800	17,000	6,300
TOLUENE	ND	ND	1,000	2,500	3,600	2,000
XYLENES	ND	ND	15,000	9,800	83,000	31,000

ENGINEERING SCIENCE INC.
04/18/88

PAGE 10

ANALYSIS REPORT FOR WORK ORDER NUMBER 467

TASK: 4, UNITS: ug/KG, GROUP 8020

TEST COMPOUND	VF1,B-1,SS-3, 3.5'	VF1,B-2,SS-1, 0.5'	VF1,B-2,SS-2, 3.5'	VF1,B-2,SS-3, 3.5'	VF1,B-3,SS-1, 1.0'	VF1,B-3,SS-2, 3.5'
	88010192	88010193	88010194	88010195	88010196	88010197
BENZENE	19,000	ND	ND	ND	ND	ND
CHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,4-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
ETHYL BENZENE	15,000	ND	ND	ND	ND	ND
TOLUENE	5,700	ND	ND	ND	ND	ND
XYLENES	60,000	ND	ND	ND	ND	ND

ENGINEERING SCIENCE INC.
04/18/88

PAGE 4

ANALYSIS REPORT FOR WORK ORDER NUMBER 467

TASK: 4, UNITS: ug/KG, GROUP 8020

TEST COMPOUND	VF1,2-4,SS-2, 3.5' 88010198	VF1,2-4,SS-3, 8.5' 88010199
BENZENE	ND	41
CHLOROBENZENE	ND	ND
1,2-DICHLOROBENZENE	ND	ND
1,3-DICHLOROBENZENE	ND	ND
1,4-DICHLOROBENZENE	ND	ND
ETHYL BENZENE	ND	110
TOLUENE	ND	51
XYLENES	ND	190

2ND COLUMN CONFIRMATION DATA

4-21-88

WORK ORDER NUMBER 467

TASK: 4, UNITS: ug/Kg, GROUP 8020

88010188

VF1,B-22,SS-1,0.5'

TEST COMPOUND	Analysis Results	
	Col 1	Col 2
BENZENE	170	220
CHLOROBENZENE	ND	ND
1,2-DICHLOROBENZENE	ND	ND
1,3-DICHLOROBENZENE	ND	ND
1,4-DICHLOROBENZENE	ND	ND
ETHYL BENZENE	1,100	2,000
TOLUENE	1,000	1,000
XYLENES	15,000	12,000

2ND COLUMN CONFIRMATION DATA
4-21-88
WORK ORDER NUMBER 467

TASK: 4, UNITS: ug/Kg, GROUP 8020

88010189
VF1,B-4,SS-1,0.5'

TEST COMPOUND	Analysis Results	
	Col 1	Col 2
BENZENE	2,000	1,700
CHLOROBENZENE	ND	ND
1,2-DICHLOROBENZENE	ND	ND
1,3-DICHLOROBENZENE	ND	ND
1,4-DICHLOROBENZENE	ND	ND
ETHYL BENZENE	4,800	970
TOLUENE	2,500	1,600
XYLENES	9,800	8,500

2ND COLUMN CONFIRMATION DATA

4-21-88

WORK ORDER NUMBER 467

TASK: 4, UNITS: ug/Kg, GROUP 8020

88010190

VF1,B-1,SS-1,0.5'

TEST COMPOUND	Analysis Results	
	Col 1	Col 2
BENZENE	16,000	14,000
CHLOROBENZENE	ND	ND
1,2-DICHLOROBENZENE	ND	ND
1,3-DICHLOROBENZENE	ND	ND
1,4-DICHLOROBENZENE	ND	ND
ETHYL BENZENE	17,000	6,000
TOLUENE	3,600	6,500
XYLENES	83,000	45,000

2ND COLUMN CONFIRMATION DATA

4-21-88

WORK ORDER NUMBER 467

TASK: 4, UNITS: ug/Kg, GROUP 8020

88010191

VF1,B-1,SS-2,3.5'

TEST COMPOUND	Analysis Results	
	Col 1	Col 2
BENZENE	6,500	7,300
CHLOROBENZENE	ND	ND
1,2-DICHLOROBENZENE	ND	ND
1,3-DICHLOROBENZENE	ND	ND
1,4-DICHLOROBENZENE	ND	ND
ETHYL BENZENE	6,300	1,600
TOLUENE	2,000	3,200
XYLENES	31,000	33,000

2ND COLUMN CONFIRMATION DATA

4-21-88

WORK ORDER NUMBER 467

TASK: 4, UNITS: ug/Kg, GROUP 8020

88010192

VF1,B-1,SS-3,8.5'

TEST COMPOUND	Analysis Results	
	Col 1	Col 2
BENZENE	19,000	14,000
CHLOROBENZENE	ND	ND
1,2-DICHLOROBENZENE	ND	ND
1,3-DICHLOROBENZENE	ND	ND
1,4-DICHLOROBENZENE	ND	ND
ETHYL BENZENE	15,000	5,200
TOLUENE	5,700	6,200
XYLENES	60,000	32,000

2ND COLUMN CONFIRMATION DATA

4-21-88

WORK ORDER NUMBER 467

TASK: 4, UNITS: ug/Kg, GROUP 8020

88010199

VF1,B-4,SS-3,8.5'

TEST COMPOUND	Analysis Results	
	Col 1	Col 2
BENZENE	41	75
CHLOROBENZENE	ND	ND
1,2-DICHLOROBENZENE	ND	ND
1,3-DICHLOROBENZENE	ND	ND
1,4-DICHLOROBENZENE	ND	ND
ETHYL BENZENE	110	110
TOLUENE	51	91
XYLENES	190	440

Detection Limits
Aromatic Volatile Organics
EPA Method 8020
Samples No.: 88010186 - 88010199

<u>Compound</u>	<u>Detection Limits</u>
Benzene	0.2 ug/Kg
Chlorobenzene	0.2
1,2-Dichlorobenzene	0.4
1,3-Dichlorobenzene	0.4
1,4-Dichlorobenzene	0.3
Ethylbenzene	0.2
Toluene	0.2
Xylenes (Dimethyl benzene)	0.4

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

ENGINEERING SCIENCE INC.
04/12/88

PAGE 3

ANALYSIS REPORT FOR WORK ORDER NUMBER 472

TASK: 4, UNITS: ug/KG, GROUP 8020

	VF1,B-7,SS-3, 8.5'	VF1,B-6,SS-2, 3.5'	VF1,B-6,SS-3, 8.5'	VF1,B-7,SS-1, 0'	VF1,B-7,SS-2, 3.5'	VF1,B-5,SS-1,0'
TEST COMPOUND	88010204	88010205	88010206	88010207	88010208	88010209
BENZENE	ND	1,200	970	ND	ND	ND
CHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,4-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
ETHYL BENZENE	ND	5,000	3,500	ND	ND	ND
TOLUENE	ND	2,600	1,800	ND	ND	ND
XYLENES	ND	25,000	84,000	ND	ND	ND

ENGINEERING SCIENCE INC.

PAGE 5

04/18/88

ANALYSIS REPORT FOR WORK ORDER NUMBER 472

TASK: 4, UNITS: ug/KG, GROUP 8020

TEST COMPOUND	VF1,B-3,SS-2, 3.5' 88010210	VF1,B-5,SS-3, 10.0' 88010211	VF1,B-6,SS-1, 0' 88010212
BENZENE	ND	110	120
CHLOROBENZENE	ND	ND	ND
1,2-DICHLOROBENZENE	ND	ND	ND
1,3-DICHLOROBENZENE	ND	ND	ND
1,4-DICHLOROBENZENE	ND	ND	ND
ETHYL BENZENE	ND	360	370
TOLUENE	ND	500	800
XYLENES	ND	880	2,200

2ND COLUMN CONFIRMATION DATA
4-22-88
WORK ORDER NUMBER 472

TASK: 4, UNITS: ug/Kg, GROUP 8020

88010205
VF1, B-6, SS-2, 3.5'

TEST COMPOUND	Analysis Results	
	Col 1	Col 2
BENZENE	1200	1600
CHLOROBENZENE	ND	ND
1,2-DICHLOROBENZENE	ND	ND
1,3-DICHLOROBENZENE	ND	ND
1,4-DICHLOROBENZENE	ND	ND
ETHYL BENZENE	6000	9000
TOLUENE	2600	9200
XYLENES	25,000	29,000

2ND COLUMN CONFIRMATION DATA

4-22-88

WORK ORDER NUMBER 472

TASK: 4, UNITS: ug/Kg, GROUP 8020

88010206

VF1, B-6, SS-3, 8.5'

TEST COMPOUND	Analysis Results	
	Col 1	Col 2
BENZENE	970	720
CHLOROBENZENE	ND	ND
1,2-DICHLOROBENZENE	ND	ND
1,3-DICHLOROBENZENE	ND	ND
1,4-DICHLOROBENZENE	ND	ND
ETHYL BENZENE	8500	6700
TOLUENE	1800	1300
XYLENES	84,000	82,000

2ND COLUMN CONFIRMATION DATA

4-22-88

WORK ORDER NUMBER 472

TASK: 4, UNITS: ug/Kg, GROUP 8020

88010211

VF1, B-5, SS-3, 10.0'

TEST COMPOUND	Analysis Results	
	Col 1	Col 2
BENZENE	110	110
CHLOROBENZENE	ND	ND
1,2-DICHLOROBENZENE	ND	ND
1,3-DICHLOROBENZENE	ND	ND
1,4-DICHLOROBENZENE	ND	ND
ETHYL BENZENE	360	300
TOLUENE	500	840
XYLENES	880	530

2ND COLUMN CONFIRMATION DATA
4-22-88
WORK ORDER NUMBER 472

TASK: 4, UNITS: ug/Kg, GROUP 8020

88010212
VF1, B-6, SS-1, 0'

TEST COMPOUND	Analysis Results	
	Col 1	Col 2
BENZENE	120	160
CHLOROBENZENE	ND	ND
1,2-DICHLOROBENZENE	ND	ND
1,3-DICHLOROBENZENE	ND	ND
1,4-DICHLOROBENZENE	ND	ND
ETHYL BENZENE	370	420
TOLUENE	800	820
XYLENES	2200	2000

Detection Limits
Aromatic Volatile Organics
EPA Method 8020
Sample(s) No.: 88010204-88010212

<u>Compound</u>	<u>Detection Limits</u>
Benzene	0.2 ug/Kg
Chlorobenzene	0.2
1,2-Dichlorobenzene	0.4
1,3-Dichlorobenzene	0.4
1,4-Dichlorobenzene	0.3
Ethylbenzene	0.2
Toluene	0.2
Xylenes (Dimethyl benzene)	0.4

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

ENGINEERING SCIENCE INC.
04/18/88

PAGE 5

ANALYSIS REPORT FOR WORK ORDER NUMBER 474

TASK: 4, UNITS: ug/KG, GROUP 8020

	VF1,B-26,SS-1, 0'	VF1,B-9,SS-2, 3.5'	VF1,B-9,SS-3, 8.5'	VF1,B-8,SS-1, 0'	VF1,B-8,SS-2, 3.5'	VF1,B-8,SS-3, 8.5'
TEST COMPOUND	88010214	88010215	88010216	88010217	88010218	88010219
BENZENE	ND	ND	ND	ND	ND	ND
CHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,4-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
ETHYL BENZENE	ND	ND	ND	ND	ND	ND
TOLUENE	ND	ND	ND	ND	ND	ND
XYLENES	ND	ND	ND	ND	ND	ND

ANALYSIS REPORT FOR WORK ORDER NUMBER 474

TASK: 4, UNITS: ug/KG, GROUP 8020

	VF1,B-9,SS-1, 0'
TEST COMPOUND	88010220
-----	-----
BENZENE	ND
CHLOROBENZENE	ND
1,2-DICHLOROBENZENE	ND
1,3-DICHLOROBENZENE	ND
1,4-DICHLOROBENZENE	ND
ETHYL BENZENE	ND
TOLUENE	ND
XYLENES	ND

Detection Limits
Aromatic Volatile Organics
EPA Method 8020
Sample(s) No.: 88010214-88010220

<u>Compound</u>	<u>Detection Limits</u>
Benzene	0.2 ug/Kg
Chlorobenzene	0.2
1,2-Dichlorobenzene	0.4
1,3-Dichlorobenzene	0.4
1,4-Dichlorobenzene	0.3
Ethylbenzene	0.2
Toluene	0.2
Xylenes (Dimethyl benzene)	0.4

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

ENGINEERING SCIENCE INC.
04/18/88

PAGE 5

ANALYSIS REPORT FOR WORK ORDER NUMBER 489

TASK: 4, UNITS: ug/KG, GROUP 8020

	VF1,B-10,SS-1, 0.5'	VF1,B-27,SS-1, 0.5'	VF1,B-10,SS-2, 3.5'	VF1,B-10,SS-3, 8.5'	VF1,B-11,SS-1, 1.0'	VF1,B-11,SS-2 3.5'
TEST COMPOUND	88020289	88020290	88020291	88020292	88020293	88020294
BENZENE	ND	ND	ND	ND	ND	ND
CHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,4-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
ETHYL BENZENE	ND	ND	ND	ND	ND	ND
TOLUENE	ND	ND	ND	ND	ND	ND
XYLENES	ND	ND	ND	ND	ND	ND

ENGINEERING SCIENCE INC.
04/18/88

PAGE

ANALYSIS REPORT FOR WORK ORDER NUMBER 489

TASK: 4, UNITS: ug/KG, GROUP 8020

TEST COMPOUND	VF1,B-11,SS-3, 8.5'	VF1,B-12,SS-1 1.0'	VF1,B-12,SS-2, 3.5'	VF1,B-12,SS-3, 8.5'	VF1,B-13,SS-1, 1.5'	VF1,B-28,SS-1, 1.5'
	88020295	88020296	88020297	88020298	88020299	88020300
BENZENE	15,000	ND	ND	ND	ND	ND
CHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,4-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
ETHYL BENZENE	40,000	ND	ND	ND	ND	ND
TOLUENE	37,000	ND	ND	ND	ND	ND
XYLENES	88,000	ND	ND	ND	ND	ND

2ND COLUMN CONFIRMATION DATA

4-22-88

WORK ORDER NUMBER 489

TASK: 4, UNITS: ug/Kg, GROUP 8020

88020295

VF1, B-11, SS-3, 8.5'

TEST COMPOUND	Analysis Results	
	Col 1	Col 2
BENZENE	15,000	15,000
CHLOROBENZENE	ND	ND
1,2-DICHLOROBENZENE	ND	ND
1,3-DICHLOROBENZENE	ND	ND
1,4-DICHLOROBENZENE	ND	ND
ETHYL BENZENE	40,000	31,000
TOLUENE	37,000	17,000
XYLENES	88,000	146,000

Detection Limits
Aromatic Volatile Organics
EPA Method 8020
Sample(s) No.: 88020289-88020300

<u>Compound</u>	<u>Detection Limits</u>
Benzene	0.2 ug/Kg
Chlorobenzene	0.2
1,2-Dichlorobenzene	0.4
1,3-Dichlorobenzene	0.4
1,4-Dichlorobenzene	0.3
Ethylbenzene	0.2
Toluene	0.2
Xylenes (Dimethyl benzene)	0.4

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

04/18/88

ANALYSIS REPORT FOR WORK ORDER NUMBER 500

TASK: 4, UNITS: ug/KG, GROUP 8020

TEST COMPOUND	VF1,8-14,SS-3, 8.5'	VF1,8-15,SS-1, 0.5'	VF1,8-15,SS-2, 3.5'	VF1,8-15,SS-3, 8.5'	VF1,8-13,SS-2, 3.5'	VF1,8-13,SS-3, 8.5'
	88020371	88020372	88020373	88020374	88020375	88020376
BENZENE	ND	ND	ND	ND	ND	ND
CHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,4-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
ETHYL BENZENE	ND	ND	ND	ND	ND	ND
TOLUENE	ND	ND	ND	ND	ND	ND
XYLENES	ND	ND	ND	ND	ND	ND

ENGINEERING SCIENCE INC.
04/18/88

PAGE 7

ANALYSIS REPORT FOR WORK ORDER NUMBER 500

TASK: 4, UNITS: ug/KG, GROUP 3020

TEST COMPOUND	VF1,B-14,SS-1, 1.0'	VF1,B-14,SS-2, 3.5'
	88020377	88020378
BENZENE	ND	ND
CHLOROBENZENE	ND	ND
1,2-DICHLOROBENZENE	ND	ND
1,3-DICHLOROBENZENE	ND	ND
1,4-DICHLOROBENZENE	ND	ND
ETHYL BENZENE	ND	ND
TOLUENE	ND	ND
XYLENES	ND	ND

Detection Limits
Aromatic Volatile Organics
EPA Method 8020
Samples No.: 88020371 - 89020378

<u>Compound</u>	<u>Detection Limits</u>
Benzene	0.2 ug/Kg
Chlorobenzene	0.2
1,2-Dichlorobenzene	0.4
1,3-Dichlorobenzene	0.4
1,4-Dichlorobenzene	0.3
Ethylbenzene	0.2
Toluene	0.2
Xylenes (Dimethyl benzene)	0.4

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

ENGINEERING SCIENCE INC.
04/18/88

ANALYSIS REPORT FOR WORK ORDER NUMBER 530

TASK: 4, UNITS: ug/L, GROUP 8020

	VF,2-W1,6W1,ES	VF,1-W4,6W1,ES	VF,1-W5,6W1,ES	VF,2-W2,6W1,ES	VF,1-W1,6W1,ES	VF,3/6-W1,6W1,ES
TEST COMPOUND	88030536	98030537	88030538	88030539	88030540	88030541
BENZENE	ND	450	4.5	ND	4.9	1.5
CHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,4-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
ETHYL BENZENE	ND	51	ND	ND	ND	ND
TOLUENE	ND	10.8	ND	ND	0.44	1.6
XYLENES	ND	107	4.7	ND	4.0	29.9

04/18/88

ANALYSIS REPORT FOR WORK ORDER NUMBER 530

TASK: 4, UNITS: ug/L, GROUP 8020

VF, 11-W3, GW1, ES

TEST COMPOUND	88030542
BENZENE	ND
CHLOROBENZENE	ND
1,2-DICHLOROBENZENE	ND
1,3-DICHLOROBENZENE	ND
1,4-DICHLOROBENZENE	ND
ETHYL BENZENE	ND
TOLUENE	ND
XYLENES	ND

2ND COLUMN CONFIRMATION DATA

4-21-88

WORK ORDER NUMBER 530

TASK: 4, UNITS: ug/L, GROUP 8020

88030537

VF, 1-W4, GW1, ES

TEST COMPOUND	Analysis Results	
	Col 1	Col 2
BENZENE	450	360
CHLOROBENZENE	ND	ND
1,2-DICHLOROBENZENE	ND	ND
1,3-DICHLOROBENZENE	ND	ND
1,4-DICHLOROBENZENE	ND	ND
ETHYL BENZENE	51	53
TOLUENE	10.8	6.8
XYLENES	107	78

2ND COLUMN CONFIRMATION DATA

4-21-88

WORK ORDER NUMBER 530

TASK: 4, UNITS: ug/L, GROUP 8020

88030538

VF, 1-W5, GW1, ES

TEST COMPOUND	Analysis Results	
	Col 1	Col 2
BENZENE	4.5	3.4
CHLOROBENZENE	ND	ND
1,2-DICHLOROBENZENE	ND	ND
1,3-DICHLOROBENZENE	ND	ND
1,4-DICHLOROBENZENE	ND	ND
ETHYL BENZENE	ND	ND
TOLUENE	ND	ND
XYLENES	4.7	8.9

2ND COLUMN CONFIRMATION DATA
4-21-88
WORK ORDER NUMBER 530

TASK: 4, UNITS: ug/L, GROUP 8020

88030540
VP, 1-W1, GW1, ES

TEST COMPOUND	Analysis Results	
	Col 1	Col 2
BENZENE	4.9	8.0
CHLOROBENZENE	ND	ND
1,2-DICHLOROBENZENE	ND	ND
1,3-DICHLOROBENZENE	ND	ND
1,4-DICHLOROBENZENE	ND	ND
ETHYL BENZENE	ND	ND
TOLUENE	0.44	0.56
XYLENES	4.0	4.1

Detection Limits
Aromatic Volatile Organics
EPA Method 8020
Samples No.: 88030536 - 88030542

<u>Compound</u>	<u>Detection Limits</u>
Benzene	0.2 ug/L
Chlorobenzene	0.2
1,2-Dichlorobenzene	0.4
1,3-Dichlorobenzene	0.4
1,4-Dichlorobenzene	0.3
Ethylbenzene	0.2
Toluene	0.2
Xylenes (Dimethyl benzene)	0.4

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

ENGINEERING SCIENCE INC.

04/18/88

ANALYSIS REPORT FOR WORK ORDER NUMBER 536

ASK: 4, UNITS: ug/L, GROUP 8020

	VF,12-W3,6W1,ES	VF,1-W2,6W1,ES	VF,ET-1,6W1,ES	VF,ET-2,6W1,ES	VF,ET-3,6W1,ES	VF,11-W5,3W1,ES
EST COMPOUND	88030565	88030566	88030567	88030568	88030569	88030570
BENZENE	ND	1.2	ND	ND	8,270	ND
CHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,4-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
ETHYL BENZENE	ND	ND	ND	ND	535	ND
STYRENE	ND	7.0	ND	ND	12,700	ND
PHENOL	ND	51.8	ND	ND	1,740	ND

2ND COLUMN CONFIRMATION DATA

4-21-88

WORK ORDER NUMBER 536

TASK: 4, UNITS: ug/L, GROUP 8020

88030566

VF, 1-W2, GW1, ES

TEST COMPOUND	Analysis Results	
	Col 1	Col 2
BENZENE	1.2	0.6?
CHLOROBENZENE	ND	ND
1,2-DICHLOROBENZENE	ND	ND
1,3-DICHLOROBENZENE	ND	ND
1,4-DICHLOROBENZENE	ND	ND
ETHYL BENZENE	ND	ND
TOLUENE	7.0	7.6
XYLENES	51.8	37.5

2ND COLUMN CONFIRMATION DATA
4-21-88
WORK ORDER NUMBER 536

TASK: 4, UNITS: ug/L, GROUP 8020

88030569
VF, ET-3, GW1, ES

TEST COMPOUND	Analysis Results	
	Col 1	Col 2
BENZENE	8,720	8,150
CHLOROBENZENE	ND	ND
1,2-DICHLOROBENZENE	ND	ND
1,3-DICHLOROBENZENE	ND	ND
1,4-DICHLOROBENZENE	ND	ND
ETHYL BENZENE	535	706
TOLUENE	12,700	11,300
XYLENES	1,740	1,830

Detection Limits
Aromatic Volatile Organics
EPA Method 8020
Samples No.: 88030565 - 88030570

<u>Compound</u>	<u>Detection Limits</u>
Benzene	0.2 ug/L
Chlorobenzene	0.2
1,2-Dichlorobenzene	0.4
1,3-Dichlorobenzene	0.4
1,4-Dichlorobenzene	0.3
Ethylbenzene	0.2
Toluene	0.2
Xylenes (Dimethyl benzene)	0.4

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

ENGINEERING SCIENCE INC.
04/18/88

PAGE 1

ANALYSIS REPORT FOR WORK ORDER NUMBER 538

TASK: 4, UNITS: ug/L, GROUP 8020

	VF,ET-5,6M1,ES	VF,ET-4,6M1,ES	VF,13-M1,6M1,ES	VF,ET-7,6M1,ES	VF,ET-6,6M1,ES	VF,11-M6,6M1,ES
TEST COMPOUND	88030572	88030573	88030574	88030575	88030576	88030577
BENZENE	2,800	29	ND	153	ND	ND
CHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,4-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
ETHYL BENZENE	390	166	ND	178	ND	ND
TOLUENE	3,950	40	ND	470	ND	ND
XYLENES	1,800	900	ND	694	ND	ND

2ND COLUMN CONFIRMATION DATA

4-21-88

WORK ORDER NUMBER 538

TASK: 4, UNITS: ug/L, GROUP 8020

88030572

VF,ET-5,GW1,ES

TEST COMPOUND	Analysis Results	
	Col 1	Col 2
BENZENE	2,800	3,390
CHLOROBENZENE	ND	ND
1,2-DICHLOROBENZENE	ND	ND
1,3-DICHLOROBENZENE	ND	ND
1,4-DICHLOROBENZENE	ND	ND
ETHYL BENZENE	390	187
TOLUENE	3,950	4,460
XYLENES	1,800	1,190

2ND COLUMN CONFIRMATION DATA

4-21-88

WORK ORDER NUMBER 538

TASK: 4, UNITS: ug/L, GROUP 8020

88030573

VF,ET-4,GW1,ES

TEST COMPOUND	Analysis Results	
	Col 1	Col 2
BENZENE	29	54
CHLOROBENZENE	ND	ND
1,2-DICHLOROBENZENE	ND	ND
1,3-DICHLOROBENZENE	ND	ND
1,4-DICHLOROBENZENE	ND	ND
ETHYL BENZENE	166	126
TOLUENE	40	39
XYLENES	900	790

2ND COLUMN CONFIRMATION DATA

4-21-88

WORK ORDER NUMBER 538

TASK: 4, UNITS: ug/L, GROUP 8020

88030575

VF,ET-7,GW1,ES

TEST COMPOUND	Analysis Results	
	Col 1	Col 2
BENZENE	153	158
CHLOROBENZENE	ND	ND
1,2-DICHLOROBENZENE	ND	ND
1,3-DICHLOROBENZENE	ND	ND
1,4-DICHLOROBENZENE	ND	ND
ETHYL BENZENE	178	140
TOLUENE	470	473
XYLENES	694	710

Detection Limits
Aromatic Volatile Organics
EPA Method 8020
Samples No.: 88030572 - 88030577

<u>Compound</u>	<u>Detection Limits</u>
Benzene	0.2 ug/L
Chlorobenzene	0.2
1,2-Dichlorobenzene	0.4
1,3-Dichlorobenzene	0.4
1,4-Dichlorobenzene	0.3
Ethylbenzene	0.2
Toluene	0.2
Xylenes (Dimethyl benzene)	0.4

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

ENGINEERING SCIENCE INC.
04/18/88

PAGE 7

ANALYSIS REPORT FOR WORK ORDER NUMBER 534

TASK: 4, UNITS: ug/L, GROUP 8020

	VF,2-W5,6W1,ES	VF,2-1,5W1,ES	VF,2-2,5W1,ES	VF,1-W3,6W1,ES	VF,10-W1,6W1,ES	VF,2-W3,6W1,ES
TEST COMPOUND	88030551	88030552	88030553	88030554	88030555	88030556
BENZENE	ND	ND	ND	3,680	ND	ND
CHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,4-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
ETHYL BENZENE	ND	ND	ND	100	ND	ND
TOLUENE	ND	ND	ND	1,827	ND	ND
XYLENES	ND	ND	ND	404	ND	ND

ENGINEERING SCIENCE INC.
04/18/88

PAGE 3

ANALYSIS REPORT FOR WORK ORDER NUMBER 534

TASK: 4, UNITS: ug/L, GROUP 8020

	VF,2-W4,6W1,ES	VF,10-W2,6W1,ES	VF,10-W3,6W1,ES	VF,10-W5,6W1,ES	VF,10-W4,6W1,ES	VF,12-W2,6W1,ES
TEST COMPOUND	38030557	88030558	88030559	88030560	88030561	38030562
BENZENE	ND	ND	ND	167	114	ND
CHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,2-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
1,4-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND
ETHYL BENZENE	ND	ND	ND	16.6	16.2	ND
TOLUENE	ND	ND	ND	149	100	ND
XYLENES	ND	ND	ND	58.7	45.1	ND

ENGINEERING SCIENCE INC.
04/18/88

PAGE 1

ANALYSIS REPORT FOR WORK ORDER NUMBER 534

TASK: 4, UNITS: ug/L, GROUP 8020

VF, 11-W4, GW1, ES

TEST COMPOUND

88030563

BENZENE	ND
CHLOROBENZENE	ND
1,2-DICHLOROBENZENE	ND
1,3-DICHLOROBENZENE	ND
1,4-DICHLOROBENZENE	ND
ETHYL BENZENE	ND
TOLUENE	ND
XYLENES	ND

2ND COLUMN CONFIRMATION DATA

4-21-88

WORK ORDER NUMBER 534

TASK: 4, UNITS: ug/L, GROUP 8020

88030554

VF, 1-W3, GW1, ES

TEST COMPOUND	Analysis Results	
	Col 1	Col 2
BENZENE	3,680	3,570
CHLOROBENZENE	ND	ND
1,2-DICHLOROBENZENE	ND	ND
1,3-DICHLOROBENZENE	ND	ND
1,4-DICHLOROBENZENE	ND	ND
ETHYL BENZENE	100	134
TOLUENE	1,827	1,450
XYLENES	404	423

Detection Limits
Aromatic Volatile Organics
EPA Method 8020
Samples No.: 88030551 - 88030563

<u>Compound</u>	<u>Detection Limits</u>
Benzene	0.2 ug/L
Chlorobenzene	0.2
1,2-Dichlorobenzene	0.4
1,3-Dichlorobenzene	0.4
1,4-Dichlorobenzene	0.3
Ethylbenzene	0.2
Toluene	0.2
Xylenes (Dimethyl benzene)	0.4

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

ANALYSIS REPORT

WORK ORDER NUMBER: 732
JOB NUMBER : ZB0000000400
WORK ORDER DATE : 07/08/88

APPROVED BY _____
Lab Supervisor

REPORT DATA:
ES ATLANTA/VOLK FIELD ANGB
57 EXECUTIVE PARK STE. 590
ATLANTA, GA 30329
DAN LANE

CLIENT DATA:
ES ATLANTA/VOLK FIELD ANGB (85)
57 EXECUTIVE PARK STE. 590
ATLANTA, GA 30329

OF REPORT COPIES: 1

CONTRACT / PO # : AT077
CONTACT : DAN LANE
(404)-325-0770

TASK: 4, UNITS: ug/L, GROUP 8020

TEST COMPOUND	VF 950 7-7-88 88071335	GW-1 ES 1140	TRIP BLANK 7-7-88 1203 88071336	VF 934 7-7-88 88071337	GW-1 ES 1215	VF 916 7-7-88 88071338	GW-1 ES 1250
BENZENE	ND		ND	ND		ND	
CHLOROBENZENE	ND		ND	ND		ND	
1,2-DICHLOROBENZENE	ND		ND	ND		ND	
1,3-DICHLOROBENZENE	ND		ND	ND		ND	
1,4-DICHLOROBENZENE	ND		ND	ND		ND	
ETHYL BENZENE	ND		ND	ND		ND	
TOLUENE	ND		ND	ND		ND	
XYLENES	ND		ND	ND		ND	

DETECTION LIMITS
AROMATIC VOLATILE ORGANICS
EPA METHOD 8020
SAMPLES NO.: 88071335-88071338

Compound	Detection Limits
Benzene	0.2 ug/L
Chlorobenzene	0.2 ug/L
1,2-Dichlorobenzene	0.4 ug/L
1,3-Dichlorobenzene	0.4 ug/L
1,4-Dichlorobenzene	0.3 ug/L
Ethylbenzene	0.2 ug/L
Toluene	0.2 ug/L
Xylenes (Dimethyl benzene)	0.4 ug/L

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

**ANALYTICAL RESULTS FOR
PETROLEUM HYDROCARBONS AND
TOTAL DISSOLVED SOLIDS**

ENGINEERING SCIENCE INC.

04/18/88

PAGE 1

ANALYSIS REPORT

WORK ORDER NUMBER: 467
JOB NUMBER : ZB0000000400
WORK ORDER DATE : 01/27/88

APPROVED BY

RUBenator
Lab Supervisor

REPORT DATA:
ES ATLANTA/VOLK FIELD ANGB
57 EXECUTIVE PARK STE. 390
ATLANTA, GA 30329
JIMMY DUNCAN

CLIENT DATA:
ES ATLANTA/VOLK FIELD ANGB (35)
57 EXECUTIVE PARK STE. 390
ATLANTA, GA 30329

OF REPORT COPIES: 1

CONTRACT / PO # : AT077
CONTACT : JIMMY DUNCAN
(404)-325-0770

TASK: 3, UNITS: ug/Kg

	VF1,B-3,SS-3, 8.5'	VF1,B-21,SS-1, 1.0'	VF1,B-22,SS-1, 0.5'	VF1,B-4,SS-1, 0.5'	VF1,B-1,SS-1, 0.5'	VF1,B-1,SS-2, 3.5'
TEST COMPOUND	88010186	88010187	88010188	88010189	88010190	88010191
418.1 PETROLEUM HYDROCARBONS	<100	130	11000	11000	22000	8600

ENGINEERING SCIENCE INC.
04/19/68

PAGE

ANALYSIS REPORT FOR WORK ORDER NUMBER 467

TASK: 3, UNITS: mg/Kg

TEST COMPOUND	VF1,B-1,SS-3, 8.5'	VF1,B-2,SS-1, 0.5'	VF1,B-2,SS-2, 3.5'	VF1,B-2,SS-3, 8.5'	VF1,B-3,SS-1, 1.0'	VF1,B-3,SS-2, 3.5'
	88010192	88010193	88010194	88010195	88010196	88010197
418.1 PETROLEUM HYDROCARBONS	8600	260	<100	<100	<100	<100

ANALYSIS REPORT FOR WORK ORDER NUMBER 467

TASK: 3, UNITS: mg/Kg

TEST COMPOUND	VF1,B-4,SS-2, 3.5' 88010198	VF1,B-4,SS-3, 3.5' 88010199
419.1 PETROLEUM HYDROCARBONS	220	1500

Detection Limits
Environmental Quality Parameters
Samples No.: 88010186 - 88010199

<u>Parameter</u>	<u>Units</u>	<u>Detection Limits</u>
418.1 Petroleum Hydrocarbons	mg/Kg	100

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

ENGINEERING SCIENCE INC.

04/18/88

ANALYSIS REPORT

WORK ORDER NUMBER: 530
JCS NUMBER : Z80000000400
WORK ORDER DATE : 03/05/88

APPROVED BY

RWB
Lab Supervisor

REPORT DATA:

ES ATLANTA/VOLK FIELD ANGB
57 EXECUTIVE PARK STE. 590
ATLANTA, GA 30329
JIMMY DUNCAN

CLIENT DATA:

ES ATLANTA/VOLK FIELD ANGB (85)
57 EXECUTIVE PARK STE. 590
ATLANTA, GA 30329

OF REPORT COPIES: 1

CONTRACT PO # : AT077
CONTACT : JIMMY DUNCAN
(404)-325-0770

TASK: 3, UNITS: ug/L

	VF,2-W1,6W1,ES	VF,1-W4,6W1,ES	VF,1-W5,6W1,ES	VF,2-W2,6W1,ES	VF,1-W1,6W1,ES	VF,3/6-W1,6W1,ES
TEST COMPOUND	88030536	88030537	88030538	88030539	88030540	88030541
418.1 PETROLEUM HYDROCARBONS	<1	<1	<1	<1	<1	<1
TOTAL DISSOLVED SOLIDS	33.0	550	164	73.0	129	

Detection Limits
Environmental Quality Parameters
Samples No.: 88030536 - 88030540

<u>Parameter</u>	<u>Units</u>	<u>Detection Limits</u>
418.1 Petroleum Hydrocarbons	mg/L	1
E160.1 Total Dissolved Solids	mg/L	10

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

Detection Limits
Environmental Quality Parameters
Sample No.: 88030541

<u>Parameter</u>	<u>Units</u>	<u>Detection Limits</u>
418.1 Petroleum Hydrocarbons	mg/L	1

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

ENGINEERING SCIENCE INC.
04/18/88

PAGE 1

ANALYSIS REPORT

WORK ORDER NUMBER: 538
JOB NUMBER : ZB0000000400
WORK ORDER DATE : 03/10/88

APPROVED BY


Lab Supervisor

REPORT DATA:
ES ATLANTA/VOLK FIELD ANGB
57 EXECUTIVE PARK STE. 590
ATLANTA, GA 30329
JIMMY DUNCAN

CLIENT DATA:
ES ATLANTA/VOLK FIELD ANGB (35)
57 EXECUTIVE PARK STE. 590
ATLANTA, GA 30329

OF REPORT COPIES: 1

CONTRACT / PO # : AT077
CONTACT : JIMMY DUNCAN
(404)-325-0770

TASK: 3, UNITS: ug/L

VF,ET-5,6W1,ES VF,ET-4,6W1,ES VF,13-W1,6W1,ES VF,ET-7,6W1,ES VF,ET-6,6W1,ES

TEST COMPOUND	88030572	88030573	88030574	88030575	88030576
418.1 PETROLEUM HYDROCARBONS	110	18	<1	<1	<1
TOTAL DISSOLVED SOLIDS	382	191	<10	109	43.0

Detection Limits
Environmental Quality Parameters
Samples No.: 88030572 - 88030576

<u>Parameter</u>	<u>Units</u>	<u>Detection Limits</u>
418.1 Petroleum Hydrocarbons	mg/L	1
E160.1 Total Dissolved Solids	mg/L	10

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

ANALYSIS REPORT

WORK ORDER NUMBER: 474
JOB NUMBER : ZB0000000400
WORK ORDER DATE : 01/29/88

APPROVED BY

R. W. Burton

Lab Supervisor

REPORT DATA:
ES ATLANTA/VOLK FIELD ANGB
57 EXECUTIVE PARK STE. 590
ATLANTA, GA 30329
JIMMY DUNCAN

CLIENT DATA:
ES ATLANTA/VOLK FIELD ANGB (85)
57 EXECUTIVE PARK STE. 590
ATLANTA, GA 30329

OF REPORT COPIES: 1

CONTRACT / PO # : AT077
CONTACT : JIMMY DUNCAN
(404)-325-0770

TASK: 3, UNITS: mg/Kg

TEST COMPOUND	VF1, B-26, SS-1, 0'	VF1, B-9, SS-2, 3.5'	VF1, B-9, SS-3, 8.5'	VF1, B-8, SS-1, 0'	VF1, B-8, SS-2, 3.5'	VF1, B-8, SS-3, 8.5'
	88010214	88010215	88010216	88010217	88010218	88010219
418.1 PETROLEUM HYDROCARBONS	<100	100	<100	160	<100	<100

ANALYSIS REPORT FOR WORK ORDER NUMBER 474

TASK: 3, UNITS: mg/Kg

TEST COMPOUND	VF1,B-9,SS-1, 0' 88010220
-----	-----
418.1 PETROLEUM HYDROCARBONS	<100

Detection Limits
Environmental Quality Parameters
Samples No.: 88010214 - 88010220

<u>Parameter</u>	<u>Units</u>	<u>Detection Limits</u>
418.1 Petroleum Hydrocarbons	mg/Kg	100

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

ENGINEERING SCIENCE INC.
04/13/88

PAGE 1

ANALYSIS REPORT

WORK ORDER NUMBER: 489
JOB NUMBER : ZB0000000400
WORK ORDER DATE : 02/10/88

APPROVED BY

MWB
Lab Supervisor

REPORT DATA:
ES ATLANTA/VOLK FIELD ANGB
57 EXECUTIVE PARK STE. 590
ATLANTA, GA 30329
JIMMY DUNCAN

CLIENT DATA:
ES ATLANTA/VOLK FIELD ANGB (57)
57 EXECUTIVE PARK STE. 590
ATLANTA, GA 30329

* OF REPORT COPIES: 1

CONTRACT / PO # : AT077
CONTACT : JIMMY DUNCAN
(404)-325-0770

TASK: 3, UNITS: ug/Kg

	VF1,8-10,SS-1, 0.5'	VF1,8-27,SS-1, 0.5'	VF1,8-10,SS-2, 3.5'	VF1,8-10,SS-3, 8.5'	VF1,8-11,SS-1, 1.0'	VF1,8-11,SS-2, 3.5'
TEST COMPOUND	98020289	88020290	98020291	88020292	88020293	88020294
418.1 PETROLEUM HYDROCARBONS	570	750	<100	<100	<100	<100

ENGINEERING SCIENCE INC.

04/18/88

PAGE 1

ANALYSIS REPORT FOR WORK ORDER NUMBER 489

TASK: 3, UNITS: ug/Kg

TEST COMPOUND	VF1,B-11,SS-3, 3.5'	VF1,B-12,SS-1 1.0'	VF1,B-12,SS-2, 3.5'	VF1,B-12,SS-3, 8.5'	VF1,B-13,SS-1, 1.5'	VF1,B-28,SS-1, 1.5'
	88020295	88020296	88020297	88020298	88020299	88020300
419.1 PETROLEUM HYDROCARBONS	2900	<100	<100	<100	<100	<100

Detection Limits
Environmental Quality Parameters
Samples No.: 88020289 - 88020300

<u>Parameter</u>	<u>Units</u>	<u>Detection Limits</u>
418.1 Petroleum Hydrocarbons	mg/Kg	100

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

ENGINEERING SCIENCE INC.
04/13/88

PAGE 1

ANALYSIS REPORT FOR WORK ORDER NUMBER 500

TASK: 3, UNITS: mg/Kg

TEST COMPOUND	VF1,B-14,SS-3, 8.5'	VF1,B-15,SS-1, 0.5'	VF1,B-15,SS-2, 3.5'	VF1,B-15,SS-3, 8.5'	VF1,B-13,SS-2, 3.5'	VF1,B-13,SS-3, 8.5'
	88020371	88020372	88020373	88020374	88020375	88020376
418.1 PETROLEUM HYDROCARBONS	<100	<100	<100	<100	<100	<100

ENGINEERING SCIENCE INC.

PAGE 3

04/18/88

ANALYSIS REPORT FOR WORK ORDER NUMBER 500

TASK: 3, UNITS: mg/Kg

	VF1,B-14,SS-1, 1.0'	VF1,B-14,SS-2, 3.5'
TEST COMPOUND	88020377	88020378

418.1 PETROLEUM HYDROCARBONS	<100	<100

Detection Limits
Environmental Quality Parameters
Samples No.: 88020371 - 88020378

<u>Parameter</u>	<u>Units</u>	<u>Detection Limits</u>
418.1 Petroleum Hydrocarbons	mg/Kg	100

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

ENGINEERING SCIENCE INC.
04/18/88

PAGE 1

ANALYSIS REPORT

WORK ORDER NUMBER: 534
JOB NUMBER : ZB0000000400
WORK ORDER DATE : 03/08/88

APPROVED BY

RWB
Lab Supervisor

REPORT DATA:
ES ATLANTA/VOLK FIELD ANGB
37 EXECUTIVE PARK STE. 590
ATLANTA, GA 30329
JIMMY DUNCAN

CLIENT DATA:
ES ATLANTA/VOLK FIELD ANGB (35)
37 EXECUTIVE PARK STE. 590
ATLANTA, GA 30329

OF REPORT COPIES: 1

CONTRACT / PO # : AT077
CONTACT : JIMMY DUNCAN
(404)-325-0770

TASK: 3, UNITS: ug/L

	VF,2-W5,GW1,ES	VF,2-1,GW1,ES	VF,2-2,GW1,ES	VF,1-W3,GW1,ES	VF,10-W1,GW1,ES	VF,2-W3,GW1,ES
TEST COMPOUND	88030551	88030552	88030553	88030554	88030555	88030556
418.1 PETROLEUM HYDROCARBONS	<1	<1	<1	1.6	<1	<1
TOTAL DISSOLVED SOLIDS	48.0	93.0	94.0	215		70.0

Detection Limits
Environmental Quality Parameters
Samples No.: 88030551 - 88030562

<u>Parameter</u>	<u>Units</u>	<u>Detection Limits</u>
418.1 Petroleum Hydrocarbons	mg/L	1
E160.1 Total Dissolved Solids	mg/L	10

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

ENGINEERING SCIENCE INC.

PAGE 1

04/18/88

ANALYSIS REPORT

WORK ORDER NUMBER: 536
JOB NUMBER : ZB0000000400
WORK ORDER DATE : 03/09/88

APPROVED BY

RWB
Lab Supervisor

REPORT DATA:

ES ATLANTA/VOLK FIELD ANGB
57 EXECUTIVE PARK STE. 590
ATLANTA, GA 30329
JIMMY DUNCAN

CLIENT DATA:

ES ATLANTA/VOLK FIELD ANGB (35)
57 EXECUTIVE PARK STE. 590
ATLANTA, GA 30329

OF REPORT COPIES: 1

CONTRACT / PO # : AT077
CONTACT : JIMMY DUNCAN
(404)-325-0770

TASK: 3, UNITS: mg/L

VF,12-W3,GW1,ES VF,1-W2,GW1,ES VF,ET-1,GW1,ES VF,ET-2,GW1,ES VF,ET-3,GW1,ES

TEST COMPOUND	88030565	88030566	88030567	88030568	88030569
418.1 PETROLEUM HYDROCARBONS	<1	<1	<1	<1	26
TOTAL DISSOLVED SOLIDS	<10	82.0	89.0	57.0	220

Detection Limits
Environmental Quality Parameters
Samples No.: 88030565 - 88030569

<u>Parameter</u>	<u>Units</u>	<u>Detection Limits</u>
418.1 Petroleum Hydrocarbons	mg/L	1
E160.1 Total Dissolved Solids	mg/L	10

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

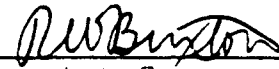
ENGINEERING SCIENCE INC.

04/13/88

ANALYSIS REPORT

WORK ORDER NUMBER: 472
JOB NUMBER : ZB0000000400
WORK ORDER DATE : 01/28/88

APPROVED BY



Lab Supervisor

REPORT DATA:
ES ATLANTA/VOLK FIELD ANGB
57 EXECUTIVE PARK STE. 590
ATLANTA, GA 30329
JIMMY DUNCAN

CLIENT DATA:
ES ATLANTA/VOLK FIELD ANGB (35)
57 EXECUTIVE PARK STE. 590
ATLANTA, GA 30329

OF REPORT COPIES: 1

CONTRACT / PO # : AT077
CONTACT : JIMMY DUNCAN
(404)-325-0770

TASK: 3, UNITS: mg/kg

	VF1,B-7,SS-3, 8.5'	VF1,B-6,SS-2, 3.5'	VF1,B-6,SS-3, 8.5'	VF1,B-7,SS-1, 0'	VF1,B-7,SS-2, 3.5'	VF1,B-5,SS-1,0'
TEST COMPOUND	88010204	88010205	88010206	88010207	88010208	88010209
418.1 PETROLEUM HYDROCARBONS	<100	3000	3200	<100	<100	280

ENGINEERING SCIENCE INC.
04/18/88

1433 1

ANALYSIS REPORT FOR WORK ORDER NUMBER 472

046.1 3, UNITS: mg/Kg

TEST COMPOUND	VF1,B-5,SS-2, 3.5'	VF1,B-5,SS-3, 10.0'	VF1,B-5,SS-1, 10.0'
	88010210	88010211	88010212
415.1 PETROLEUM HYDROCARBONS	500	420	830

Detection Limits
Environmental Quality Parameters
Samples No.: 88010204 - 88010212

<u>Parameter</u>	<u>Units</u>	<u>Detection Limits</u>
418.1 Petroleum Hydrocarbons	mg/Kg	100

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

ENGINEERING SCIENCE INC.

PAGE

04/18/88

ANALYSIS REPORT FOR WORK ORDER NUMBER 534

TASK: 3, UNITS: ug/L

VF, 2-W4, 6W1, ES VF, 10-W2, 6W1, ES VF, 10-W3, 6W1, ES VF, 10-W5, 6W1, ES VF, 10-W4, 6W1, ES VF, 12-W2, 6W1, ES

TEST COMPOUND	88030557	88030558	88030559	88030560	88030561	88030562
419.1 PETROLEUM HYDROCARBONS	<1	*	<1	<1	<1	<1
TOTAL DISSOLVED SOLIDS	59.0					110

ANALYTICAL RESULTS FOR PCBS

ANALYSIS REPORT FOR WORK ORDER NUMBER 467

TASK: 4, UNITS: ug/KG, GROUP 8080

TEST COMPOUND	VF1,B-3,SS-3, 8.5'	VF1,B-21,SS-1, 1.0'	VF1,B-22,SS-1, 0.5'	VF1,B-4,SS-1, 0.5'	VF1,B-1,SS-1, 0.5'	VF1,B-1,SS-2, 3.5'
	88010186	88010187	88010188	88010189	88010190	88010191
ALDRIN	NT	NT	NT	NT	NT	NT
ALPHA-BHC	NT	NT	NT	NT	NT	NT
BETA-BHC	NT	NT	NT	NT	NT	NT
DELTA-BHC	NT	NT	NT	NT	NT	NT
GAMMA-BHC	NT	NT	NT	NT	NT	NT
CHLORDANE	NT	NT	NT	NT	NT	NT
4,4'-DDD	NT	NT	NT	NT	NT	NT
4,4'-DDE	NT	NT	NT	NT	NT	NT
4,4'-DDT	NT	NT	NT	NT	NT	NT
DIELDRIN	NT	NT	NT	NT	NT	NT
ENDOSULFAN I	NT	NT	NT	NT	NT	NT
ENDOSULFAN II	NT	NT	NT	NT	NT	NT
ENDOSULFAN SULFATE	NT	NT	NT	NT	NT	NT
ENDRIN	NT	NT	NT	NT	NT	NT
ENDRIN ALDEHYDE	NT	NT	NT	NT	NT	NT
HEPTACHLOR	NT	NT	NT	NT	NT	NT
HEPTACHLOR EPOXIDE	NT	NT	NT	NT	NT	NT
KEPONE	NT	NT	NT	NT	NT	NT
METHOXYCHLOR	NT	NT	NT	NT	NT	NT
TOXAPHENE	NT	NT	NT	NT	NT	NT
PCB-1016	ND	ND	ND	ND	ND	ND
PCB-1221	ND	ND	ND	ND	ND	ND
PCB-1232	ND	ND	ND	ND	ND	ND
PCB-1242	ND	ND	ND	ND	ND	ND
PCB-1248	ND	ND	ND	ND	ND	ND
PCB-1254	ND	ND	ND	ND	ND	ND
PCB-1260	ND	ND	ND	ND	ND	ND

ENGINEERING SCIENCE INC.

04/18/88

PAGE 11

ANALYSIS REPORT FOR WORK ORDER NUMBER

467

TASK: 4, UNITS: ug/KG, GROUP 8080

TEST COMPOUND	VF1,B-1,SS-3, 3.5'	VF1,B-2,SS-1, 0.5'	VF1,B-2,SS-2, 3.5'	VF1,B-2,SS-3, 3.5'	VF1,B-3,SS-1, 1.0'	VF1,B-3,SS-2, 3.5'
	88010192	88010193	88010194	88010195	88010196	88010197
ALDRIN	NT	NT	NT	NT	NT	NT
ALPHA-BHC	NT	NT	NT	NT	NT	NT
BETA-BHC	NT	NT	NT	NT	NT	NT
DELTA-BHC	NT	NT	NT	NT	NT	NT
GAMMA-BHC	NT	NT	NT	NT	NT	NT
CHLORDANE	NT	NT	NT	NT	NT	NT
4,4'-DDD	NT	NT	NT	NT	NT	NT
4,4'-DDE	NT	NT	NT	NT	NT	NT
4,4'-DDT	NT	NT	NT	NT	NT	NT
DIELDRIN	NT	NT	NT	NT	NT	NT
ENDOSULFAN I	NT	NT	NT	NT	NT	NT
ENDOSULFAN II	NT	NT	NT	NT	NT	NT
ENDOSULFAN SULFATE	NT	NT	NT	NT	NT	NT
ENDRIN	NT	NT	NT	NT	NT	NT
ENDRIN ALDEHYDE	NT	NT	NT	NT	NT	NT
HEPTACHLOR	NT	NT	NT	NT	NT	NT
HEPTACHLOR EPOXIDE	NT	NT	NT	NT	NT	NT
KEPONE	NT	NT	NT	NT	NT	NT
METHOXYCHLOR	NT	NT	NT	NT	NT	NT
TOXAPHENE	NT	NT	NT	NT	NT	NT
PCB-1016	ND	ND	ND	ND	ND	ND
PCB-1221	ND	ND	ND	ND	ND	ND
PCB-1232	ND	ND	ND	ND	ND	ND
PCB-1242	ND	ND	ND	ND	ND	ND
PCB-1248	ND	ND	ND	ND	ND	ND
PCB-1254	ND	ND	ND	ND	ND	ND
PCB-1260	ND	ND	ND	ND	ND	ND

ANALYSIS REPORT FOR WORK ORDER NUMBER 467

TASK: 4, UNITS: ug/KG, GROUP 8080

TEST COMPOUND	VF1,B-4,SS-2, 3.5'	VF1,B-4,SS-3, 8.5'
	88010198	88010199
ALDRIN	NT	NT
ALPHA-BHC	NT	NT
BETA-BHC	NT	NT
DELTA-BHC	NT	NT
GAMMA-BHC	NT	NT
CHLORDANE	NT	NT
4,4'-DDO	NT	NT
4,4'-DDE	NT	NT
4,4'-DDT	NT	NT
DIELDRIN	NT	NT
ENDOSULFAN I	NT	NT
ENDOSULFAN II	NT	NT
ENDOSULFAN SULFATE	NT	NT
ENDRIN	NT	NT
ENDRIN ALDEHYDE	NT	NT
HEPTACHLOR	NT	NT
HEPTACHLOR EPOXIDE	NT	NT
KEPONE	NT	NT
METHOXYCHLOR	NT	NT
TOXAPHENE	NT	NT
PCB-1016	ND	ND
PCB-1221	ND	ND
PCB-1232	ND	ND
PCB-1242	ND	ND
PCB-1248	ND	ND
PCB-1254	ND	ND
PCB-1260	ND	ND

Detection Limits
PCBs
EPA 608/8080
Samples No.: 88010186-0187, 88010193-0198

<u>Compound</u>	<u>Detection Limits</u>
PCB-1016	10 ug/Kg
PCB-1221	10
PCB-1232	10
PCB-1242	10
PCB-1248	10
PCB-1254	10
PCB-1260	10

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

Detection Limits
PCBs
EPA 608/8080
Samples No.: 88010188-0192, 88010199

<u>Compound</u>	<u>Detection Limits</u>
PCB-1016	100 ug/Kg
PCB-1221	100
PCB-1232	100
PCB-1242	100
PCB-1248	100
PCB-1254	200
PCB-1260	200

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

ANALYSIS REPORT FOR WORK ORDER NUMBER 472

TASK: 4, UNITS: ug/KG, GROUP 8080

TEST COMPOUND	VF1,B-7,SS-3, 3.5' 88010204	VF1,B-6,SS-2, 3.5' 88010205	VF1,B-6,SS-3, 3.5' 88010206	VF1,B-7,SS-1, 0' 88010207	VF1,B-7,SS-2, 3.5' 88010208	VF1,B-5,SS-1,0' 88010209
ALDRIN	NT	NT	NT	NT	NT	NT
ALPHA-BHC	NT	NT	NT	NT	NT	NT
BETA-BHC	NT	NT	NT	NT	NT	NT
DELTA-BHC	NT	NT	NT	NT	NT	NT
GAMMA-BHC	NT	NT	NT	NT	NT	NT
CHLORDANE	NT	NT	NT	NT	NT	NT
4,4'-DDD	NT	NT	NT	NT	NT	NT
4,4'-DDE	NT	NT	NT	NT	NT	NT
4,4'-DDT	NT	NT	NT	NT	NT	NT
DIELDRIN	NT	NT	NT	NT	NT	NT
ENDOSULFAM I	NT	NT	NT	NT	NT	NT
ENDOSULFAM II	NT	NT	NT	NT	NT	NT
ENDOSULFAM SULFATE	NT	NT	NT	NT	NT	NT
ENDRIN	NT	NT	NT	NT	NT	NT
ENDRIN ALDEHYDE	NT	NT	NT	NT	NT	NT
HEPTACHLOR	NT	NT	NT	NT	NT	NT
HEPTACHLOR EPOXIDE	NT	NT	NT	NT	NT	NT
KEPONE	NT	NT	NT	NT	NT	NT
METHOXYCHLOR	NT	NT	NT	NT	NT	NT
TOXAPHENE	NT	NT	NT	NT	NT	NT
PCB-1016	ND	ND	ND	ND	ND	ND
PCB-1221	ND	ND	ND	ND	ND	ND
PCB-1232	ND	ND	ND	ND	ND	ND
PCB-1242	ND	ND	ND	ND	ND	ND
PCB-1248	ND	ND	ND	ND	ND	ND
PCB-1254	ND	ND	ND	ND	ND	ND
PCB-1260	ND	ND	ND	ND	ND	ND

ANALYSIS REPORT FOR WORK ORDER NUMBER 472

TASK: 4, UNITS: ug/KG, GROUP 8080

TEST COMPOUND	VF1,B-5,SS-2, 3.5' 88010210	VF1,B-5,SS-3, 10.0' 88010211	VF1,B-6,SS-1, 0' 88010212
ALDRIN	NT	NT	NT
ALPHA-BHC	NT	NT	NT
BETA-BHC	NT	NT	NT
DELTA-BHC	NT	NT	NT
GAMMA-BHC	NT	NT	NT
CHLORDANE	NT	NT	NT
4,4'-DDD	NT	NT	NT
4,4'-DDE	NT	NT	NT
4,4'-DDT	NT	NT	NT
DIELDRIN	NT	NT	NT
ENDOSULFAN I	NT	NT	NT
ENDOSULFAN II	NT	NT	NT
ENDOSULFAN SULFATE	NT	NT	NT
ENDRIN	NT	NT	NT
ENDRIN ALDEHYDE	NT	NT	NT
HEPTACHLOR	NT	NT	NT
HEPTACHLOR EPOXIDE	NT	NT	NT
KEPONE	NT	NT	NT
METHOXYCHLOR	NT	NT	NT
TOXAPHENE	NT	NT	NT
PCB-1016	ND	ND	ND
PCB-1221	ND	ND	ND
PCB-1232	ND	ND	ND
PCB-1242	ND	ND	ND
PCB-1248	ND	ND	ND
PCB-1254	ND	ND	ND
PCB-1260	ND	ND	ND

Detection Limits
PCBs
EPA 608/8080
Samples No.: 88010204-0205, 88010207-0210

<u>Compound</u>	<u>Detection Limits</u>
PCB-1016	10 ug/Kg
PCB-1221	10
PCB-1232	10
PCB-1242	10
PCB-1248	10
PCB-1254	10
PCB-1260	10

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

Detection Limits
PCBs
EPA 608/8080
Samples No.: 88010206, 88010211-0212

<u>Compound</u>	<u>Detection Limits</u>
PCB-1016	100 ug/Kg
PCB-1221	100
PCB-1232	100
PCB-1242	100
PCB-1248	100
PCB-1254	200
PCB-1260	200

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

ENGINEERING SCIENCE INC.
04/13/88

PAGE 1

ANALYSIS REPORT FOR WORK ORDER NUMBER 474

TASK: 4, UNITS: ug/KG, GROUP 8080

TEST COMPOUND	VF1,8-26,SS-1, 0' 88010214	VF1,8-9,SS-2, 3.5' 88010215	VF1,8-9,SS-3, 8.5' 88010216	VF1,8-8,SS-1, 0' 88010217	VF1,8-8,SS-2, 3.5' 88010218	VF1,8-8,SS-3, 8.5' 88010219
ALDRIN	NT	NT	NT	NT	NT	NT
ALPHA-BHC	NT	NT	NT	NT	NT	NT
BETA-BHC	NT	NT	NT	NT	NT	NT
DELTA-BHC	NT	NT	NT	NT	NT	NT
GAMMA-BHC	NT	NT	NT	NT	NT	NT
CHLORDANE	NT	NT	NT	NT	NT	NT
4,4'-DDD	NT	NT	NT	NT	NT	NT
4,4'-DDE	NT	NT	NT	NT	NT	NT
4,4'-DDT	NT	NT	NT	NT	NT	NT
DIELDRIN	NT	NT	NT	NT	NT	NT
ENDOSULFAM I	NT	NT	NT	NT	NT	NT
ENDOSULFAM II	NT	NT	NT	NT	NT	NT
ENDOSULFAM SULFATE	NT	NT	NT	NT	NT	NT
ENDRIN	NT	NT	NT	NT	NT	NT
ENDRIN ALDEHYDE	NT	NT	NT	NT	NT	NT
HEPTACHLOR	NT	NT	NT	NT	NT	NT
HEPTACHLOR EPOXIDE	NT	NT	NT	NT	NT	NT
KEPONE	NT	NT	NT	NT	NT	NT
METHOXYCHLOR	NT	NT	NT	NT	NT	NT
TOXAPHENE	NT	NT	NT	NT	NT	NT
PCB-1016	ND	ND	ND	ND	ND	ND
PCB-1221	ND	ND	ND	ND	ND	ND
PCB-1232	ND	ND	ND	ND	ND	ND
PCB-1242	ND	ND	ND	ND	ND	ND
PCB-1248	ND	ND	ND	ND	ND	ND
PCB-1254	ND	ND	ND	ND	ND	ND
PCB-1260	ND	ND	ND	ND	ND	ND

04/18/88

ANALYSIS REPORT FOR WORK ORDER NUMBER 474

TABLE: 4, UNITS: ug/KG, GROUP 2080

TEST COMPOUND	VF1,3-9,SS-1, 01 38010220
ALDRIN	NT
ALPHA-BHC	NT
BETA-BHC	NT
DELTA-BHC	NT
GAMMA-BHC	NT
CHLORDANE	NT
4,4'-DDD	NT
4,4'-DDE	NT
4,4'-DDT	NT
DIELDRIN	NT
ENDOSULFAN I	NT
ENDOSULFAN II	NT
ENDOSULFAN SULFATE	NT
ENDRIN	NT
ENDRIN ALDEHYDE	NT
HEPTACHLOR	NT
HEPTACHLOR EPOXIDE	NT
KEPONE	NT
METHOXYCHLOR	NT
TOXAPHENE	NT
PCB-1016	ND
PCB-1221	ND
PCB-1232	ND
PCB-1242	ND
PCB-1248	ND
PCB-1254	ND
PCB-1260	ND

Detection Limits
PCBs
EPA 608/8080
Samples No.: 88010214, 88010216, 88010218-0220

<u>Compound</u>	<u>Detection Limits</u>
PCB-1016	10 ug/Kg
PCB-1221	10
PCB-1232	10
PCB-1242	10
PCB-1248	10
PCB-1254	10
PCB-1260	10

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

Detection Limits
PCBs
EPA 608/8080
Samples No.: 88010215, 88010217

<u>Compound</u>	<u>Detection Limits</u>
PCB-1016	100 ug/Kg
PCB-1221	100
PCB-1232	100
PCB-1242	100
PCB-1248	100
PCB-1254	200
PCB-1260	200

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

ENGINEERING SCIENCE INC.
04/18/88

PAGE 3

ANALYSIS REPORT FOR WORK ORDER NUMBER 489

TASK: 4, UNITS: ug/KG, GROUP PCB

TEST COMPOUND	VF1,B-10,SS-1, 0.5'	VF1,B-27,SS-1, 0.5'	VF1,B-10,SS-2, 3.5'	VF1,B-10,SS-3, 0.5'	VF1,B-11,SS-1, 1.0'	VF1,B-11,SS-2 3.5'
	88020289	88020290	88020291	88020292	88020293	88020294
PCB-1016	ND	ND	ND	ND	ND	ND
PCB-1221	ND	ND	ND	ND	ND	ND
PCB-1232	ND	ND	ND	ND	ND	ND
PCB-1242	ND	ND	ND	ND	ND	ND
PCB-1248	ND	ND	ND	ND	ND	ND
PCB-1254	ND	ND	ND	ND	ND	ND
PCB-1260	ND	ND	ND	ND	ND	ND

ENGINEERING SCIENCE INC.
04/18/88

PAGE 9

ANALYSIS REPORT FOR WORK ORDER NUMBER 489

TASK: 4, UNITS: ug/KG, GROUP PCB

TEST COMPOUND	VF1,B-11,SS-3, 8.5'	VF1,B-12,SS-1 1.0'	VF1,B-12,SS-2, 3.5'	VF1,B-12,SS-3, 8.5'	VF1,B-13,SS-1, 1.5'	VF1,B-28,SS-1, 1.5'
	88020295	88020296	88020297	88020298	88020299	88020300
PCB-1016	ND	ND	ND	ND	ND	ND
PCB-1221	ND	ND	ND	ND	ND	ND
PCB-1232	ND	ND	ND	ND	ND	ND
PCB-1242	ND	ND	ND	ND	ND	ND
PCB-1248	ND	ND	ND	ND	ND	ND
PCB-1254	ND	ND	ND	ND	ND	ND
PCB-1260	ND	ND	ND	ND	ND	ND

Detection Limits

PCBs

EPA 608/8080

Samples No.: 88020291, 88020293-0294, 88020296-0300

<u>Compound</u>	<u>Detection Limits</u>
PCB-1016	10 ug/Kg
PCB-1221	10
PCB-1232	10
PCB-1242	10
PCB-1248	10
PCB-1254	10
PCB-1260	10

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

Detection Limits
PCBs
EPA 608/8080
Samples No.: 88020289-0290, 88020292, 88020295

<u>Compound</u>	<u>Detection Limits</u>
PCB-1016	100 ug/Kg
PCB-1221	100
PCB-1232	100
PCB-1242	100
PCB-1248	100
PCB-1254	200
PCB-1260	200

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

ENGINEERING SCIENCE INC.
04/18/88

PAGE 3

ANALYSIS REPORT FOR WORK ORDER NUMBER 500

TASK: 4, UNITS: ug/KG, GROUP PCB

TEST COMPOUND	VF1,B-14,SS-3, 3.5'	VF1,B-15,SS-1, 0.5'	VF1,B-15,SS-2, 3.5'	VF1,B-15,SS-3, 8.5'	VF1,B-13,SS-2, 3.5'	VF1,B-13,SS-3, 8.5'
	88020371	88020372	88020373	88020374	88020375	88020376
PCB-1016	ND	ND	ND	ND	ND	ND
PCB-1221	ND	ND	ND	ND	ND	ND
PCB-1232	ND	ND	ND	ND	ND	ND
PCB-1242	ND	ND	ND	ND	ND	ND
PCB-1248	ND	ND	ND	ND	ND	ND
PCB-1254	ND	ND	ND	ND	ND	ND
PCB-1260	ND	ND	ND	ND	ND	ND

ENGINEERING SCIENCE INC.

PAGE 2

04/18/88

ANALYSIS REPORT FOR WORK ORDER NUMBER 500

TASK: 4, UNITS: ug/KG, GROUP PCB

TEST COMPOUND	VF1,B-14,SS-1, 1.0' 88020377	VF1,B-14,SS-2, 3.5' 88020378
PCB-1016	ND	ND
PCB-1221	ND	ND
PCB-1232	ND	ND
PCB-1242	ND	ND
PCB-1248	ND	ND
PCB-1254	ND	ND
PCB-1260	ND	ND

Detection Limits
PCBs
EPA 608/8080
Samples No.: 88020371 - 88020378

<u>Compound</u>	<u>Detection Limits</u>
PCB-1016	10 ug/Kg
PCB-1221	10
PCB-1232	10
PCB-1242	10
PCB-1248	10
PCB-1254	10
PCB-1260	10

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

ENGINEERING SCIENCE INC.
04/18/88

PAGE 3

ANALYSIS REPORT FOR WORK ORDER NUMBER 538

TASK: 4, UNITS: ug/L, GROUP PCB

	VF,ET-5,GW1,ES	VF,ET-4,GW1,ES	VF,ET-7,GW1,ES	VF,ET-6,GW1,ES
TEST COMPOUND	88030572	88030573	88030575	88030576
PCB-1016	ND	ND	ND	ND
PCB-1221	ND	ND	ND	ND
PCB-1232	ND	ND	ND	ND
PCB-1242	ND	ND	ND	ND
PCB-1248	ND	ND	ND	ND
PCB-1254	ND	ND	ND	ND
PCB-1260	ND	ND	ND	ND

Detection Limits
PCBs
EPA 608/8080
Samples No.: 88030572-0573, 88030575-0576

<u>Compound</u>	<u>Detection Limits</u>
PCB-1016	5.0 ug/L
PCB-1221	5.0
PCB-1232	5.0
PCB-1242	5.0
PCB-1248	5.0
PCB-1254	10.0
PCB-1260	10.0

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

ENGINEERING SCIENCE INC.
04/18/88

PAGE 1

ANALYSIS REPORT FOR WORK ORDER NUMBER 536

TASK: 4, UNITS: ug/L, GROUP PCB

	VF,12-W3,GW1,ES	VF,1-W2,GW1,ES	VF,ET-1,GW1,ES	VF,ET-2,GW1,ES	VF,ET-3,GW1,ES
TEST COMPOUND	88030565	88030566	88030567	88030568	88030569
PCB-1016	ND	ND	ND	ND	ND
PCB-1221	ND	ND	ND	ND	ND
PCB-1232	ND	ND	ND	ND	ND
PCB-1242	ND	ND	ND	ND	ND
PCB-1248	ND	ND	ND	ND	ND
PCB-1254	ND	ND	ND	ND	ND
PCB-1260	ND	ND	ND	ND	ND

Revised Report 6-27-88

Detection Limits

PCBs

EPA 608/8080

Samples No.: 88030565 - 88030569

<u>Compound</u>	<u>Detection Limits</u>
PCB-1016	5.0 ug/L
PCB-1221	5.0
PCB-1232	5.0
PCB-1242	5.0
PCB-1248	5.0
PCB-1254	10.0
PCB-1260	10.0

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

ANALYSIS REPORT FOR WORK ORDER NUMBER 530

TASK: 4, UNITS: ug/L, GROUP PCB

	VF, 1-W4, GW1, ES	VF, 1-W5, GW1, ES	VF, 1-W1, GW1, ES
TEST COMPOUND	88030537	88030538	88030540
PCB-1016	ND	ND	ND
PCB-1221	ND	ND	ND
PCB-1232	ND	ND	ND
PCB-1242	ND	ND	ND
PCB-1248	ND	ND	ND
PCB-1254	ND	ND	ND
PCB-1260	ND	ND	ND

Detection Limits
PCBs
EPA 608/8080
Samples No.: 88030537-0538, 88030540

<u>Compound</u>	<u>Detection Limits</u>
PCB-1016	5.0 ug/L
PCB-1221	5.0
PCB-1232	5.0
PCB-1242	5.0
PCB-1248	5.0
PCB-1254	10.0
PCB-1260	10.0

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

ENGINEERING SCIENCE INC.
04/18/88

PAGE

ANALYSIS REPORT FOR WORK ORDER NUMBER 534

TASK: 4, UNITS: ug/L, GROUP PCB

VF, 1-W3, GW1, ES

TEST COMPOUND

88030554

PCB-1016
PCB-1021
PCB-1032
PCB-1042
PCB-1048
PCB-1154
PCB-1160

ND
ND
ND
ND
ND
ND
ND

Detection Limits
PCBs
EPA 608/8080
Sample No.: 88030554

<u>Compound</u>	<u>Detection Limits</u>
PCB-1016	5.0 ug/L
PCB-1221	5.0
PCB-1232	5.0
PCB-1242	5.0
PCB-1248	5.0
PCB-1254	10.0
PCB-1260	10.0

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

**ANALYTICAL RESULTS FOR
BASE/NEUTRAL ACID EXTRACTABLES**

PRIORITY POLLUTANT ANALYSIS
PESTICIDES & PCBS - SW 8270
MATRIX: SOIL

Client: ES Atlanta
Attn: Ernie Daly
Address: 57 Executive Park South
N. E. - Suite 590
Atlanta, Ga. 30329

Compound	Detection Limits	
Aldrin	200	ug/KG
Alpha-BHC	200*	ug/KG
Beta-BHC	400	ug/KG
Delta-BHC	300	ug/KG
Gamma-BHC (Lindane)	200*	ug/KG
Chlordane	4000	ug/KG
4,4'-DDD	300	ug/KG
4,4'-DDE	600	ug/KG
4,4'-DDT	500	ug/KG
Dieldrin	300	ug/KG
Endosulfan I	800*	ug/KG
Endosulfan II	800*	ug/KG
Endosulfan sulfate	600	ug/KG
Endrin	800*	ug/KG
Endrin aldehyde	300*	ug/KG
Endrin Ketone	300*	ug/KG
Heptachlor	200	ug/KG
Heptachlor epoxide	200	ug/KG
Methoxychlor	300*	ug/KG
Toxaphene	4000	ug/KG
Arochlor-1016	4000	ug/KG
Arochlor-1221	4000	ug/KG
Arochlor-1232	4000	ug/KG
Arochlor-1242	4000	ug/KG
Arochlor-1248	4000	ug/KG
Arochlor-1254	4000	ug/KG
Arochlor-1260	4000	ug/KG

* Denotes instrument detection limit. EPA has not yet determined method detection limits for these compounds.

PRIORITY POLLUTANT ANALYSIS
BASE NEUTRALS - SW 8270
MATRIX: SOIL

Client: ES Atlanta
Attn: Ernie Daly
Address: 57 Executive Park South
N. E. - Suite 590
Atlanta, Ga. 30329

Compound	Detection Limits	
Acetophenone	660*	ug/KG
Aniline	660*	ug/KG
4-Aminobiphenyl	660*	ug/KG
4-Chloroaniline	1300	ug/KG
1-Chloronaphthalene	660*	ug/KG
Dibenzofuran	660	ug/KG
p-Dimethylaminoazobenzene	660*	ug/KG
7,12-Dimethylbenz(a)anthracene	660*	ug/KG
a-,a-Dimethylphenethylamine	1300*	ug/KG
Diphenylamine	660*	ug/KG
1,2-Diphenylhydrazine	660*	ug/KG
Ethyl methanesulfonate	660*	ug/KG
3-Methylcholanthrene	660*	ug/KG
Methyl methanesulfonate	660*	ug/KG
3-Methylcholanthrene	660*	ug/KG
2-Methylnaphthalene	660	ug/KG
1-Naphthylamine	660*	ug/KG
2-Naphthylamine	660*	ug/KG
2-Nitroaniline	3300	ug/KG
3-Nitroaniline	3300	ug/KG
4-Nitroaniline	3300	ug/KG
N-Nitroso-di-n-butylamine	660*	ug/KG
N-Nitrosopiperidine	660*	ug/KG
Pentachlorobenzene	660*	ug/KG
Pentachloronitrobenzene	660*	ug/KG
Phenacetin	660*	ug/KG
2-Picoline	660*	ug/KG
Pronamide	10000	ug/KG
1,2,4,5-Tetrachlorobenzene	660*	ug/KG

* Denotes instrument detection limit. EPA has not yet determined method detection limits for these compounds.

PRIORITY POLLUTANT ANALYSIS
ACID EXTRACTABLES - SW 8270
MATRIX: SOIL

Client: ES Atlanta
Attn: Ernie Daly
Address: 57 Executive Park South
N. E. - Suite 590
Atlanta, Ga. 30329

Compound	Detection Limits	
2-Chlorophenol	660	ug/KG
2-Nitrophenol	660	ug/KG
Phenol	660	ug/KG
2,4-Dimethylphenol	660	ug/KG
2,4-Dichlorophenol	660	ug/KG
2,4,6-Trichlorophenol	660	ug/KG
4-Chloro-3-methylphenol	1300	ug/KG
2,4-Dinitrophenol	3300	ug/KG
2,6-Dichlorophenol	660*	ug/KG
2-Methyl-4,6-Dinitrophenol	3300	ug/KG
Pentachlorophenol	3300	ug/KG
4-Nitrophenol	3300	ug/KG
Benzoic Acid	3300	ug/KG
2-Methylphenol	660	ug/KG
3- & 4-Methylphenol	660	ug/KG
2,3,4,6-Tetrachlorophenol	660*	ug/KG
2,4,5-Trichlorophenol	660	ug/KG

* Denotes instrument detection limit. EPA has not yet determined method detection limits for these compounds.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil

page 1 of 3

Date Received: January 27, 1988
Date Reported: March 3, 1988
DATE REISSUED: March 10, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Folk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880190
Sample No.: UF1 B-1 SS1, 0.5'
Date Sampled: 1-26-88
Time Sampled: 840
Date Extracted: 2-1-88
Date Analyzed: 2-12-88

Compound	Detection	ANALYTICAL RESULTS	
	Limits mg/kg	mg/kg	
1,3-Dichlorobenzene	6.6	ND	
1,4-Dichlorobenzene	6.6	ND	
Hexachloroethane	6.6	ND	
Bis(2-chloroethyl)ether	6.6	ND	
1,2-Dichlorobenzene	6.6	ND	
N-Nitrosodimethylamine	25	ND	
Bis(2-chloroisopropyl)ether	6.6	ND	
N-Nitrosodi-n-propyl amine	6.6	ND	
Hexachlorobutadiene	6.6	ND	
1,2,4-Trichlorobenzene	6.6	ND	
Nitrobenzene	6.6	ND	
Isophorone	6.6	ND	
Naphthalene	6.6	ND	
Bis(2-chloroethoxy)methane	6.6	ND	
2-Chloronaphthalene	6.6	ND	
Hexachlorocyclopentadiene	6.6	ND	
Acenaphthylene	6.6	ND	
Acenaphthene	6.6	ND	
Dimethyl phthalate	6.6	ND	
2,6-Dinitrotoluene	6.6	ND	
Fluorene	6.6	ND	
2,4-Dinitrotoluene	6.6	ND	
Diethyl phthalate	6.6	ND	
N-Nitrosodiphenylamine	6.6	ND	
Hexachlorobenzene	6.6	ND	

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 3

Date Received: January 27, 1988
Date Reported: March 3, 1988
DATE REISSUED: March 10, 1988

P.O. No.
Job No. AT077

FOR: ES: Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 380190
Sample No.: VF1 B-1 SS1, 0.5'
Date Sampled: 1-26-88
Time Sampled: 340
Date Extracted: 2-1-88
Date Analyzed: 2-12-88

Compound	Detection	ANALYTICAL RESULTS
	Limit mg/kg	mg/kg
Phenanthrene	6.6	ND
Anthracene	6.6	ND
Dibutyl phthalate	6.6	ND
Fluoranthene	6.6	ND
4-Chlorophenyl phenyl ether	6.6	ND
Pyrene	6.6	ND
Butyl Benzyl phthalate	6.6	ND
Bis(2-ethylhexyl) phthalate	6.6	ND
Chrysene	6.6	ND
4-Bromophenyl phenyl ether	6.6	ND
Benzo(a)anthracene	6.6	ND
Di-n-octylphthalate	6.6	ND
Benzo(b)fluoranthene	6.6	ND
Benzo(k)fluoranthene	6.6	ND
Benzidine	60	ND
3,3'-Dichlorobenzidine	13	ND
Benzo(a)pyrene	6.6	ND
Indeno(1,2,3-cd)pyrene	6.6	ND
Dibenzo(a,h)anthracene	6.6	ND
Benzo(ghi)perylene	6.6	ND
Benzyl Alcohol	13	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988
DATE REISSUED: March 10, 1988

P.O. No.:
Job No. AT077

For: ES:Atlanta/Oolk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880190
Sample No.: UF1 B-1 SS1, 0.5'
Date Sampled: 1-26-88
Time Sampled: 940
Date Extracted: 2-1-88
Date Analyzed: 2-12-88

Compound	Detection Limits	Analytical Results
	mg/kg	mg/kg
Acetophenone	---	ND
Aniline	---	ND
4-Aminobiphenyl	---	ND
4-Chloroaniline	13	ND
1-Chloronaphthalene	---	ND
Dibenzofuran	6.6	ND
p-Dimethylaminoazobenzene	---	ND
7,12-Dimethylbenz(a)anthracene	---	ND
a-,a-Dimethylphenethylamine	---	ND
Diphenylamine	---	ND
1,2-Diphenylhydrazine	---	ND
Ethyl methanesulfonate	---	ND
3-Methylcholanthrene	---	ND
Methyl methanesulfonate	---	ND
3-Methylcholanthrene	---	ND
2-Methylnaphthalene	6.6	9.7
1-Naphthylamine	---	ND
2-Naphthylamine	---	ND
2-Nitroaniline	33	ND
3-Nitroaniline	33	ND
4-Nitroaniline	33	ND
N-Nitroso-di-n-butylamine	---	ND
N-Nitrosopiperidine	---	ND
Pentachlorobenzene	---	ND
Pentachloronitrobenzene	---	ND
Phenacetin	---	ND
2-Picoline	---	ND
Pronamide	---	ND
1,2,4,5-Tetrachlorobenzene	---	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SW 8270
Matrix: Soil

page 4 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988
DATE REISSUED: March 10, 1988

P.O. No. 1111111111
Job No. AT077

FOR ES:Atlanta/Folk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880190
Sample No.: UF1 B-1 SS1, 0.5'
Date Sampled: 1-26-88
Time Sampled: 340
Date Extracted: 2-1-88
Date Analyzed: 2-12-88

Compound	Detection Limits mg/kg	ANALYTICAL RESULTS	
		mg/kg	
Alpha-BHC	--*	ND	
Gamma-BHC	--*	ND	
Beta-BHC	4	ND	
Heptachlor	2	ND	
Delta-BHC	3	ND	
Aldrin	2	ND	
Heptachlor epoxide	2	ND	
Endosulfan I	--*	ND	
Dieldrin	3	ND	
4,4'-DDE	6	ND	
Endrin	--*	ND	
Endosulfan II	--*	ND	
4,4'-DDD	3	ND	
4,4'-DDT	5	ND	
Endosulfan Sulfate	6	ND	
Endrin aldehyde	--*	ND	
Endrin Ketone	--*	ND	
Chlordane	40	ND	
Methoxychlor	--*	ND	
Toxaphene	40	ND	
Aroclor-1016	40	ND	
Aroclor-1221	40	ND	
Aroclor-1232	40	ND	
Aroclor-1242	40	ND	
Aroclor-1248	40	ND	
Aroclor-1254	40	ND	
Aroclor-1260	40	ND	

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SW 3270
Matrix: Soil

page 5 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988
DATE REISSUED: March 10, 1988

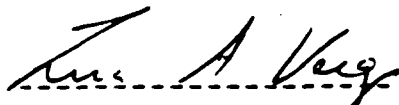
P.O. No. 1000000000
Job No. AT077

FOR: ES Atlanta/Folk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 980190
Sample No.: UF1 B-1 SS1, 0.5'
Date Sampled: 1-26-88
Time Sampled: 840
Date Extracted: 2-1-88
Date Analyzed: 2-12-88

Compound	Detection Limits mg/kg	ANALYTICAL RESULTS
		mg/kg
2-Chlorophenol	6.6	ND
2-Nitrophenol	6.6	ND
Phenol	6.6	ND
2,4-Dimethylphenol	6.6	ND
2,4-Dichlorophenol	6.6	ND
2,4,6-Trichlorophenol	6.6	ND
4-Chloro-3-methylphenol	13	ND
2,4-Dinitrophenol	33	ND
2,6-Dichlorophenol	--*	ND
2-Methyl-4,6-Dinitrophenol	33	ND
Pentachlorophenol	33	ND
4-Nitrophenol	33	ND
Benzoic Acid	33	ND
2-Methylphenol	6.6	ND
3- & 4-Methylphenol	6.6	ND
2,3,4,6-Tetrachlorophenol	--*	ND
2,4,5-Trichlorophenol	6.6	ND


Analyst


Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 9270
Matrix: Soil

page 1-6

Date Received: January 27, 1988
Date Reported: March 3, 1988
DATE REISSUED: March 10, 1988

P.O. No.:
Job No.: AT077

FOR: ES Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 980191
Sample No.: UF1 B-1 SS-2, 3.5'
Date Sampled: 1-26-88
Time Sampled: 910
Date Extracted: 2-1-88
Date Analyzed: 2-12-88

Compound	Detection Limits	ANALYTICAL RESULTS
	mg/kg	mg/kg
1,3-Dichlorobenzene	6.6	ND
1,4-Dichlorobenzene	6.6	ND
Hexachloroethane	6.6	ND
Bis(2-chloroethyl)ether	6.6	ND
1,2-Dichlorobenzene	6.6	ND
N-Nitrosodimethylamine	25	ND
Bis(2-chloroisopropyl)ether	6.6	ND
N-Nitrosodi-n-propyl amine	6.6	ND
Hexachlorobutadiene	6.6	ND
1,2,4-Trichlorobenzene	6.6	ND
Nitrobenzene	6.6	ND
Isophorone	6.6	ND
Naphthalene	6.6	7.3
Bis(2-chloroethoxy)methane	6.6	ND
2-Chloronaphthalene	6.6	ND
Hexachlorocyclopentadiene	6.6	ND
Acenaphthylene	6.6	ND
Acenaphthene	6.6	ND
Dimethyl phthalate	6.6	ND
2,6-Dinitrotoluene	6.6	ND
Fluorene	6.6	ND
2,4-Dinitrotoluene	6.6	ND
Diethyl phthalate	6.6	ND
N-Nitrosodiphenylamine	6.6	ND
Hexachlorobenzene	6.6	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988
DATE REISSUED: March 10, 1988

P.O. No.
Job No. : AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880191
Sample No. UF1 B-1 SS-2, 3.5'
Date Sampled: 1-26-88
Time Sampled: 910
Date Extracted: 2-1-88
Date Analyzed: 2-12-88

Compound	Detection	ANALYTICAL RESULTS	
	Limit mg/kg	mg/kg	
Phenanthrene	6.6	ND	
Anthracene	6.6	ND	
Dibutyl phthalate	6.6	ND	
Fluoranthene	6.6	ND	
4-Chlorophenyl phenyl ether	6.6	ND	
Pyrene	6.6	ND	
Butyl Benzyl phthalate	6.6	ND	
Bis(2-ethylhexyl) phthalate	6.6	ND	
Chrysene	6.6	ND	
4-Bromophenyl phenyl ether	6.6	ND	
Benzo(a)anthracene	6.6	ND	
Di-n-octylphthalate	6.6	ND	
Benzo(b)fluoranthene	6.6	ND	
Benzo(k)fluoranthene	6.6	ND	
Benzidine	60	ND	
3,3'-Dichlorobenzidine	13	ND	
Benzo(a)pyrene	6.6	ND	
Indeno(1,2,3-cd)pyrene	6.6	ND	
Dibenzo(a,h)anthracene	6.6	ND	
Benzo(ghi)perylene	6.6	ND	
Benzyl Alcohol	13	ND	

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988
DATE REISSUED: March 10, 1988

P.O. No.:
Job No.: AT077

For: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880191
Sample No.: OF1 B-1 SS-2, 3.5'
Date Sampled: 1-26-88
Time Sampled: 910
Date Extracted: 2-1-88
Date Analyzed: 2-12-88

Compound	Detection	Analytical Results
	Limits mg/kg	mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	13	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	6.6	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a-,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	6.6	15
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	33	ND
3-Nitroaniline	33	ND
4-Nitroaniline	33	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds

Priority Pollutant Analysis
Pesticides and PCBs - SW 8270
Matrix: Soil

page 4 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988
DATE REISSUED: March 10, 1988

P.O. No. 111111
Job No. AT077

FOR: ES Atlanta Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880191
Sample No.: OF1 B-1 SS-2, 3.5'
Date Sampled: 1-26-88
Time Sampled: 910
Date Extracted: 2-1-88
Date Analyzed: 2-12-88

Compound	Detection Limits mg/kg	ANALYTICAL RESULTS mg/kg
Alpha-BHC	--*	ND
Gamma-BHC	---	ND
Beta-BHC	4	ND
Heptachlor	2	ND
Delta-BHC	3	ND
Aldrin	2	ND
Heptachlor epoxide	2	ND
Endosulfan I	--*	ND
Dieldrin	3	ND
4,4'-DDE	6	ND
Endrin	--*	ND
Endosulfan II	--*	ND
4,4'-DDD	3	ND
4,4'-DDT	5	ND
Endosulfan Sulfate	6	ND
Endrin aldehyde	--*	ND
Endrin Ketone	--*	ND
Chlordane	40	ND
Methoxychlor	--*	ND
Toxaphene	40	ND
Aroclor-1016	40	ND
Aroclor-1221	40	ND
Aroclor-1232	40	ND
Aroclor-1242	40	ND
Aroclor-1248	40	ND
Aroclor-1254	40	ND
Aroclor-1260	40	ND

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SW 8270
Matrix: Soil

page 5 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988
DATE REISSUED: March 10, 1988

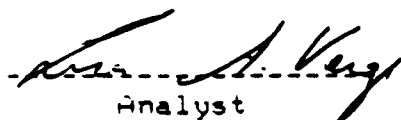
P.O. No.
Job No. : AT077

FOR: ES-Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880191
Sample No.: UF1 B-1 SS-2, 3.5'
Date Sampled: 1-26-88
Time Sampled: 310
Date Extracted: 2-1-88
Date Analyzed: 2-12-88

Compound	Detection Limits mg/kg	ANALYTICAL RESULTS	
		mg/kg	
2-Chlorophenol	6.6	ND	
2-Nitrophenol	6.6	ND	
Phenol	6.6	ND	
2,4-Dimethylphenol	6.6	ND	
2,4-Dichlorophenol	6.6	ND	
2,4,6-Trichlorophenol	6.6	ND	
4-Chloro-3-methylphenol	13	ND	
2,4-Dinitrophenol	33	ND	
2,6-Dichlorophenol	--*	ND	
2-Methyl-4,6-Dinitrophenol	33	ND	
Pentachlorophenol	33	ND	
4-Nitrophenol	33	ND	
Benzoic Acid	33	ND	
2-Methylphenol	6.6	ND	
3- & 4-Methylphenol	6.6	ND	
2,3,4,6-Tetrachlorophenol	--*	ND	
2,4,5-Trichlorophenol	6.6	ND	


Analyst


Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

CASE NARRATIVE

Sample(s) No.: 88010186-0199
Work Order Number 467

This group of samples was received at the Berkeley Laboratory on 1-27-88. It consisted of 14 soil samples for semivolatile organics analysis.

Relative percent differences for certain compounds exceeded the EPA recommended ranges. Corrective action was taken by re-extracting and reanalyzing the quality control sample.

Percent relative differences are within the EPA recommended ranges, although none of the spike compounds are detected in the sample.

Due to the matrix interferences, soil surrogate recoveries for samples 88010188 to 88010189 are diluted out.

All sample results are blank corrected.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil

page 1 of 3

Date Received: January 27, 1988
Date Reported: March 3, 1988
DATE REISSUED: March 10, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880192
Sample No.: UF1 B-1 SS-3, 3.5'
Date Sampled: 1-26-88
Time Sampled: 940
Date Extracted: 2-1-88
Date Analyzed: 2-12-88

Compound	Detection Limits mg/kg	ANALYTICAL RESULTS	
		mg/kg	
1,3-Dichlorobenzene	6.6	ND	
1,4-Dichlorobenzene	6.6	ND	
Hexachloroethane	6.6	ND	
Bis(2-chloroethyl)ether	6.6	ND	
1,2-Dichlorobenzene	6.6	ND	
N-Nitrosodimethylamine	25	ND	
Bis(2-chloroisopropyl)ether	6.6	ND	
N-Nitrosodi-n-propyl amine	6.6	ND	
Hexachlorobutadiene	6.6	ND	
1,2,4-Trichlorobenzene	6.6	ND	
Nitrobenzene	6.6	ND	
Isophorone	6.6	ND	
Naphthalene	6.6	7.3	
Bis(2-chloroethoxy)methane	6.6	ND	
2-Chloronaphthalene	6.6	ND	
Hexachlorocyclopentadiene	6.6	ND	
Acenaphthylene	6.6	ND	
Acenaphthene	6.6	ND	
Dimethyl phthalate	6.6	ND	
2,6-Dinitrotoluene	6.6	ND	
Fluorene	6.6	ND	
2,4-Dinitrotoluene	6.6	ND	
Diethyl phthalate	6.6	ND	
N-Nitrosodiphenylamine	6.6	ND	
Hexachlorobenzene	6.6	ND	

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988
DATE REISSUED: March 10, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Dolk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880192
Sample No.: UF1 B-1 SS-3, 8.5'
Date Sampled: 1-26-88
Time Sampled: 940
Date Extracted: 2-1-88
Date Analyzed: 2-12-88

Compound	Detection Limit mg/kg	ANALYTICAL RESULTS	
		mg/kg	
Phenanthrene	6.6	ND	
Anthracene	6.6	ND	
Dibutyl phthalate	6.6	ND	
Fluoranthene	6.6	ND	
4-Chlorophenyl phenyl ether	6.6	ND	
Pyrene	6.6	ND	
Butyl Benzyl phthalate	6.6	ND	
Bis(2-ethylhexyl) phthalate	6.6	ND	
Chrysene	6.6	ND	
4-Bromophenyl phenyl ether	6.6	ND	
Benzo(a)anthracene	6.6	ND	
Di-n-octylphthalate	6.6	ND	
Benzo(b)fluoranthene	6.6	ND	
Benzo(k)fluoranthene	6.6	ND	
Benzidine	60	ND	
3,3'-Dichlorobenzidine	13	ND	
Benzo(a)pyrene	6.6	ND	
Indeno(1,2,3-cd)pyrene	6.6	ND	
Dibenzo(a,h)anthracene	6.6	ND	
Benzo(ghi)perylene	6.6	ND	
Benzyl Alcohol	13	ND	

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988
DATE REISSUED: March 10, 1988

P.O. No.:
Job No.: AT027

For: ES:Atlanta/Dolk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 980192
Sample No.: UF1 B-1 SS-3, 9.5'
Date Sampled: 1-26-88
Time Sampled: 940
Date Extracted: 2-1-88
Date Analyzed: 2-12-88

Compound	Detection Limits mg/kg	Analytical Results mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	13	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	6.6	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a, a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	6.6	14
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	33	ND
3-Nitroaniline	33	ND
4-Nitroaniline	33	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds

Priority Pollutant Analysis
Pesticides and PCBs - SW 8270
Matrix: Soil

page 4 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988
DATE REISSUED: March 10, 1988

P.O. No. 111111
Job No. AT022

FOR: ES Atlanta/Oolt Field ANGB
Address 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 980192
Sample No.: UF1 B-1 SS-3, 8.5'
Date Sampled: 1-26-88
Time Sampled: 940
Date Extracted: 2-1-88
Date Analyzed: 2-12-88

Compound	Detection Limits	ANALYTICAL RESULTS	
	mg/kg	mg/kg	
Alpha-BHC	--*	ND	
Gamma-BHC	---	ND	
Beta-BHC	4	ND	
Heptachlor	2	ND	
Delta-BHC	3	ND	
Aldrin	2	ND	
Heptachlor epoxide	2	ND	
Endosulfan I	--*	ND	
Dieldrin	3	ND	
4,4'-DDE	6	ND	
Endrin	--*	ND	
Endosulfan II	--*	ND	
4,4'-DDD	3	ND	
4,4'-DDT	5	ND	
Endosulfan Sulfate	6	ND	
Endrin aldehyde	--*	ND	
Endrin Ketone	--*	ND	
Chlordane	40	ND	
Methoxychlor	--*	ND	
Toxaphene	40	ND	
Aroclor-1016	40	ND	
Aroclor-1221	40	ND	
Aroclor-1232	40	ND	
Aroclor-1242	40	ND	
Aroclor-1248	40	ND	
Aroclor-1254	40	ND	
Aroclor-1260	40	ND	

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SW 8270
Matrix: Soil

page 5 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988
DATE REISSUED: March 10, 1988

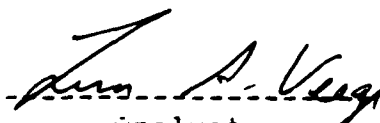
P.O. No.
Job No. : AT077

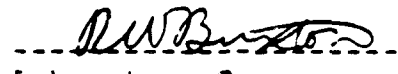
FOR: ES Atlanta/Dolk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880192
Sample No.: UF1 B-1 SS-3, 8.5'
Date Sampled: 1-26-88
Time Sampled: 940
Date Extracted: 2-1-88
Date Analyzed: 2-12-88

Compound	Detection	ANALYTICAL RESULTS	
	Limits mg/kg		mg/kg
2-Chlorophenol	6.6		ND
2-Nitrophenol	6.6		ND
Phenol	6.6		ND
2,4-Dimethylphenol	6.6		ND
2,4-Dichlorophenol	6.6		ND
2,4,6-Trichlorophenol	6.6		ND
4-Chloro-3-methylphenol	13		ND
2,4-Dinitrophenol	33		ND
2,6-Dichlorophenol	--*		ND
2-Methyl-4,6-Dinitrophenol	33		ND
Pentachlorophenol	33		ND
4-Nitrophenol	33		ND
Benzoic Acid	33		ND
2-Methylphenol	6.6		ND
3- & 4-Methylphenol	6.6		ND
2,3,4,6-Tetrachlorophenol	--*		ND
2,4,5-Trichlorophenol	6.6		ND


Analyst


Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

CASE NARRATIVE

Sample(s) No.: 88010186-0199

Work Order Number 467

This group of samples was received at the Berkeley Laboratory on 1-27-88. It consisted of 14 soil samples for semivolatile organics analysis.

Relative percent differences for certain compounds exceeded the EPA recommended ranges. Corrective action was taken by re-extracting and reanalyzing the quality control sample.

Percent relative differences are within the EPA recommended ranges, although none of the spike compounds are detected in the sample.

Due to the matrix interferences, soil surrogate recoveries for samples 88010188 to 88010189 are diluted out.

All sample results are blank corrected.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil

page 1 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880193
Sample No.: UF1 B-2 SS-1, 0.5'
Date Sampled: 1-26-88
Time Sampled: 1040
Date Extracted: 2-1-88
Date Analyzed: 2-9-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
1,3-Dichlorobenzene	0.66	ND
1,4-Dichlorobenzene	0.66	ND
Hexachloroethane	0.66	ND
Bis(2-chloroethyl)ether	0.66	ND
1,2-Dichlorobenzene	0.66	ND
N-Nitrosodimethylamine	2.5	ND
Bis(2-chloroisopropyl)ether	0.66	ND
N-Nitrosodi-n-propyl amine	0.66	ND
Hexachlorobutadiene	0.66	ND
1,2,4-Trichlorobenzene	0.66	ND
Nitrobenzene	0.66	ND
Isophorone	0.66	ND
Naphthalene	0.66	ND
Bis(2-chloroethoxy)methane	0.66	ND
2-Chloronaphthalene	0.66	ND
Hexachlorocyclopentadiene	0.66	ND
Acenaphthylene	0.66	ND
Acenaphthene	0.66	ND
Dimethyl phthalate	0.66	ND
2,6-Dinitrotoluene	0.66	ND
Fluorene	0.66	ND
2,4-Dinitrotoluene	0.66	ND
Diethyl phthalate	0.66	ND
N-Nitrosodiphenylamine	0.66	ND
Hexachlorobenzene	0.66	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880193
Sample No.: UF1 B-2 SS-1, 0.5'
Date Sampled: 1-26-88
Time Sampled: 1040
Date Extracted: 2-1-88
Date Analyzed: 2-9-88

Compound	Detection	ANALYTICAL RESULTS	
	Limit	mg/kg	
	mg/kg		
Phenanthrene	0.66	ND	
Anthracene	0.66	ND	
Dibutyl phthalate	0.66	ND	
Fluoranthene	0.66	ND	
4-Chlorophenyl phenyl ether	0.66	ND	
Pyrene	0.66	ND	
Butyl Benzyl phthalate	0.66	ND	
Bis(2-ethylhexyl) phthalate	0.66	ND	
Chrysene	0.66	ND	
4-Bromophenyl phenyl ether	0.66	ND	
Benzo(a)anthracene	0.66	ND	
Di-n-octylphthalate	0.66	ND	
Benzo(b)fluoranthene	0.66	ND	
Benzo(k)fluoranthene	0.66	ND	
Benzydine	6.0	ND	
3,3'-Dichlorobenzidine	1.3	ND	
Benzo(a)pyrene	0.66	ND	
Indeno(1,2,3-cd)pyrene	0.66	ND	
Dibenzo(a,h)anthracene	0.66	ND	
Benzo(ghi)perylene	0.66	ND	
Benzyl Alcohol	1.3	ND	

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988

P.O. No.:
Job No.: AT077

For: ES:Atlanta/Dolk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 980193
Sample No.: UF1 B-2 SS-1, 0.5'
Date Sampled: 1-26-88
Time Sampled: 1040
Date Extracted: 2-1-88
Date Analyzed: 2-9-88

Compound	Detection	Analytical Results
	Limits mg/kg	mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	1.3	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	0.66	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a-,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	0.66	ND
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	3.3	ND
3-Nitroaniline	3.3	ND
4-Nitroaniline	3.3	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SW 8270
Matrix: Soil

page 4 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880193
Sample No.: UF1 B-2 SS-1, 0.5'
Date Sampled: 1-26-88
Time Sampled: 1040
Date Extracted: 2-1-88
Date Analyzed: 2-9-88

Compound	Detection	ANALYTICAL RESULTS
	Limits	
	mg/kg	mg/kg
Alpha-BHC	--*	ND
Gamma-BHC	—*	ND
Beta-BHC	0.4	ND
Heptachlor	0.2	ND
Delta-BHC	0.3	ND
Aldrin	0.2	ND
Heptachlor epoxide	0.2	ND
Endosulfan I	--*	ND
Dieldrin	0.3	ND
4,4'-DDE	0.6	ND
Endrin	--*	ND
Endosulfan II	--*	ND
4,4'-DDD	0.3	ND
4,4'-DDT	0.5	ND
Endosulfan Sulfate	0.6	ND
Endrin aldehyde	--*	ND
Endrin Ketone	--*	ND
Chlordane	4.0	ND
Methoxychlor	--*	ND
Toxaphene	4.0	ND
Aroclor-1016	4.0	ND
Aroclor-1221	4.0	ND
Aroclor-1232	4.0	ND
Aroclor-1242	4.0	ND
Aroclor-1248	4.0	ND
Aroclor-1254	4.0	ND
Aroclor-1260	4.0	ND

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SW 9270
Matrix: Soil

page 5 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988

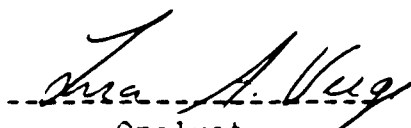
P.O. No.:
Job No.: AT077

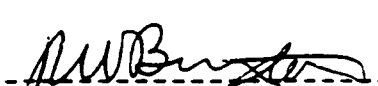
FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880193
Sample No.: UF1 B-2 SS-1, 0.5'
Date Sampled: 1-26-88
Time Sampled: 1040
Date Extracted: 2-1-88
Date Analyzed: 2-9-88

Compound	Detection Limits	ANALYTICAL RESULTS
	mg/kg	mg/kg
2-Chlorophenol	0.66	ND
2-Nitrophenol	0.66	ND
Phenol	0.66	ND
2,4-Dimethylphenol	0.66	ND
2,4-Dichlorophenol	0.66	ND
2,4,6-Trichlorophenol	0.66	ND
4-Chloro-3-methylphenol	1.3	ND
2,4-Dinitrophenol	3.3	ND
2,6-Dichlorophenol	--*	ND
2-Methyl-4,6-Dinitrophenol	3.3	ND
Pentachlorophenol	3.3	ND
4-Nitrophenol	3.3	ND
Benzoic Acid	3.3	ND
2-Methylphenol	0.66	ND
3- & 4-Methylphenol	0.66	ND
2,3,4,6-Tetrachlorophenol	--*	ND
2,4,5-Trichlorophenol	0.66	ND


Analyst


Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

CASE NARRATIVE

Sample(s) No.: 88010186-0199

Work Order Number 467

This group of samples was received at the Berkeley Laboratory on 1-27-88. It consisted of 14 soil samples for semivolatile organics analysis.

Relative percent differences for certain compounds exceeded the EPA recommended ranges. Corrective action was taken by re-extracting and reanalyzing the quality control sample.

Percent relative differences are within the EPA recommended ranges, although none of the spike compounds are detected in the sample.

Due to the matrix interferences, soil surrogate recoveries for samples 88010188 to 88010189 are diluted out.

All sample results are blank corrected.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil

page 1 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880194
Sample No.: UF1 B-2 SS-2, 3.5
Date Sampled: 1-26-88
Time Sampled: 1110
Date Extracted: 2-1-88
Date Analyzed: 2-9-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
1,3-Dichlorobenzene	0.66	ND
1,4-Dichlorobenzene	0.66	ND
Hexachloroethane	0.66	ND
Bis(2-chloroethyl)ether	0.66	ND
1,2-Dichlorobenzene	0.66	ND
N-Nitrosodimethylamine	2.5	ND
Bis(2-chloroisopropyl)ether	0.66	ND
N-Nitrosodi-n-propyl amine	0.66	ND
Hexachlorobutadiene	0.66	ND
1,2,4-Trichlorobenzene	0.66	ND
Nitrobenzene	0.66	ND
Isophorone	0.66	ND
Naphthalene	0.66	ND
Bis(2-chloroethoxy)methane	0.66	ND
2-Chloronaphthalene	0.66	ND
Hexachlorocyclopentadiene	0.66	ND
Acenaphthylene	0.66	ND
Acenaphthene	0.66	ND
Dimethyl phthalate	0.66	ND
2,6-Dinitrotoluene	0.66	ND
Fluorene	0.66	ND
2,4-Dinitrotoluene	0.66	ND
Diethyl phthalate	0.66	ND
N-Nitrosodiphenylamine	0.66	ND
Hexachlorobenzene	0.66	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 3

Date Received: January 27, 1988
Date Reported: March 3, 1988

P.O. No.:
Job No.: AT077

FOR: ES Atlanta/Oolk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880194
Sample No.: UF1 B-2 SS-2, 3.5
Date Sampled: 1-26-88
Time Sampled: 1110
Date Extracted: 2-1-88
Date Analyzed: 2-9-88

Compound	Detection	ANALYTICAL RESULTS
	Limit mg/kg	mg/kg
Phenanthrene	0.66	ND
Anthracene	0.66	ND
Dibutyl phthalate	0.66	ND
Fluoranthene	0.66	ND
4-Chlorophenyl phenyl ether	0.66	ND
Pyrene	0.66	ND
Butyl Benzyl phthalate	0.66	ND
Bis(2-ethylhexyl) phthalate	0.66	ND
Chrysene	0.66	ND
4-Bromophenyl phenyl ether	0.66	ND
Benzo(a)anthracene	0.66	ND
Di-n-octylphthalate	0.66	ND
Benzo(b)fluoranthene	0.66	ND
Benzo(k)fluoranthene	0.66	ND
Benzidine	6.0	ND
3,3'-Dichlorobenzidine	1.3	ND
Benzo(a)pyrene	0.66	ND
Indeno(1,2,3-cd)pyrene	0.66	ND
Dibenzo(a,h)anthracene	0.66	ND
Benzo(ghi)perylene	0.66	ND
Benzyl Alcohol	1.3	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988

P.O. No.:
Job No.: AT077

For: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880194
Sample No.: UF1 B-2 SS-2, 3.5
Date Sampled: 1-26-88
Time Sampled: 1110
Date Extracted: 2-1-88
Date Analyzed: 2-9-88

Compound	Detection Limits mg/kg	Analytical Results mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	1.3	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	0.66	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a-,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	0.66	ND
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	3.3	ND
3-Nitroaniline	3.3	ND
4-Nitroaniline	3.3	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SW 8270
Matrix: Soil

page 4 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880194
Sample No.: UF1 B-2 SS-2, 3.5
Date Sampled: 1-26-88
Time Sampled: 1110
Date Extracted: 2-1-88
Date Analyzed: 2-9-88

Compound	Detection	ANALYTICAL RESULTS	
	Limits mg/kg	mg/kg	
Alpha-BHC	--*	ND	
Gamma-BHC	---	ND	
Beta-BHC	0.4	ND	
Heptachlor	0.2	ND	
Delta-BHC	0.3	ND	
Aldrin	0.2	ND	
Heptachlor epoxide	0.2	ND	
Endosulfan I	--*	ND	
Dieldrin	0.3	ND	
4,4'-DDE	0.6	ND	
Endrin	--*	ND	
Endosulfan II	--*	ND	
4,4'-DDD	0.3	ND	
4,4'-DDT	0.5	ND	
Endosulfan Sulfate	0.6	ND	
Endrin aldehyde	--*	ND	
Endrin Ketone	--*	ND	
Chlordane	4.0	ND	
Methoxychlor	--*	ND	
Toxaphene	4.0	ND	
Aroclor-1016	4.0	ND	
Aroclor-1221	4.0	ND	
Aroclor-1232	4.0	ND	
Aroclor-1242	4.0	ND	
Aroclor-1248	4.0	ND	
Aroclor-1254	4.0	ND	
Aroclor-1260	4.0	ND	

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SW 8270
Matrix: Soil

page 5 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988

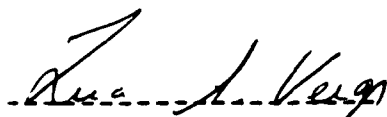
P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880194
Sample No.: UF1 B-2 SS-2, 3.5
Date Sampled: 1-26-88
Time Sampled: 1110
Date Extracted: 2-1-88
Date Analyzed: 2-9-88

Compound	Detection Limits mg/kg	ANALYTICAL RESULTS	
		mg/kg	
2-Chlorophenol	0.66	ND	
2-Nitrophenol	0.66	ND	
Phenol	0.66	ND	
2,4-Dimethylphenol	0.66	ND	
2,4-Dichlorophenol	0.66	ND	
2,4,6-Trichlorophenol	0.66	ND	
4-Chloro-3-methylphenol	1.3	ND	
2,4-Dinitrophenol	3.3	ND	
2,6-Dichlorophenol	--*	ND	
2-Methyl-4,6-Dinitrophenol	3.3	ND	
Pentachlorophenol	3.3	ND	
4-Nitrophenol	3.3	ND	
Benzoic Acid	3.3	ND	
2-Methylphenol	0.66	ND	
3- & 4-Methylphenol	0.66	ND	
2,3,4,6-Tetrachlorophenol	--*	ND	
2,4,5-Trichlorophenol	0.66	ND	


Analyst


Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

CASE NARRATIVE

Sample(s) No.: 88010186-0199

Work Order Number 467

This group of samples was received at the Berkeley Laboratory on 1-27-88. It consisted of 14 soil samples for semivolatile organics analysis.

Relative percent differences for certain compounds exceeded the EPA recommended ranges. Corrective action was taken by re-extracting and reanalyzing the quality control sample.

Percent relative differences are within the EPA recommended ranges, although none of the spike compounds are detected in the sample.

Due to the matrix interferences, soil surrogate recoveries for samples 88010188 to 88010189 are diluted out.

All sample results are blank corrected.

ENGINEERING SCIENCE
 Priority Pollutant Analysis
 Base Neutrals - SW 8270
 Matrix: Soil

page 1 of 5

Date Received: January 27, 1988
 Date Reported: March 3, 1988

P.O. No.:
 Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
 Address: 57 Executive Park S.E., Suite 590
 Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880195
 Sample No.: UF1 B-2 SS-3, 8.5'
 Date Sampled: 1-26-88
 Time Sampled: 1145
 Date Extracted: 2-1-88
 Date Analyzed: 2-9-88

Compound	Detection Limits mg/kg	ANALYTICAL RESULTS	
		mg/kg	
1,3-Dichlorobenzene	0.66	ND	
1,4-Dichlorobenzene	0.66	ND	
Hexachloroethane	0.66	ND	
Bis(2-chloroethyl)ether	0.66	ND	
1,2-Dichlorobenzene	0.66	ND	
N-Nitrosodimethylamine	2.5	ND	
Bis(2-chloroisopropyl)ether	0.66	ND	
N-Nitrosodi-n-propyl amine	0.66	ND	
Hexachlorobutadiene	0.66	ND	
1,2,4-Trichlorobenzene	0.66	ND	
Nitrobenzene	0.66	ND	
Isophorone	0.66	ND	
Naphthalene	0.66	ND	
Bis(2-chloroethoxy)methane	0.66	ND	
2-Chloronaphthalene	0.66	ND	
Hexachlorocyclopentadiene	0.66	ND	
Acenaphthylene	0.66	ND	
Acenaphthene	0.66	ND	
Dimethyl phthalate	0.66	ND	
2,6-Dinitrotoluene	0.66	ND	
Fluorene	0.66	ND	
2,4-Dinitrotoluene	0.66	ND	
Diethyl phthalate	0.66	ND	
N-Nitrosodiphenylamine	0.66	ND	
Hexachlorobenzene	0.66	ND	

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880195
Sample No.: UF1 B-2 SS-3, 8.5'
Date Sampled: 1-26-88
Time Sampled: 1145
Date Extracted: 2-1-88
Date Analyzed: 2-9-88

Compound	Detection	ANALYTICAL RESULTS	
	Limit mg/kg	mg/kg	
Phenanthrene	0.66	ND	
Anthracene	0.66	ND	
Dibutyl phthalate	0.66	ND	
Fluoranthene	0.66	ND	
4-Chlorophenyl phenyl ether	0.66	ND	
Pyrene	0.66	ND	
Butyl Benzyl phthalate	0.66	ND	
Bis(2-ethylhexyl) phthalate	0.66	ND	
Chrysene	0.66	ND	
4-Bromophenyl phenyl ether	0.66	ND	
Benzo(a)anthracene	0.66	ND	
Di-n-octylphthalate	0.66	ND	
Benzo(b)fluoranthene	0.66	ND	
Benzo(k)fluoranthene	0.66	ND	
Benzidine	6.0	ND	
3,3'-Dichlorobenzidine	1.3	ND	
Benzo(a)pyrene	0.66	ND	
Indeno(1,2,3-cd)pyrene	0.66	ND	
Dibenzo(a,h)anthracene	0.66	ND	
Benzo(ghi)perylene	0.66	ND	
Benzyl Alcohol	1.3	ND	

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988

P.O. No.:
Job No.: AT077

For: ES:Atlanta/Volk Field ANGB
Address: 17 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880195
Sample No.: UF1 B-2 SS-3, 8.5'
Date Sampled: 1-26-88
Time Sampled: 1145
Date Extracted: 2-1-88
Date Analyzed: 2-9-88

Compound	Detection Limits mg/kg	Analytical Results
		mg/kg
Acetophenone	---	ND
Aniline	---	ND
4-Aminobiphenyl	---	ND
4-Chloroaniline	1.3	ND
1-Chloronaphthalene	---	ND
Dibenzofuran	0.66	ND
p-Dimethylaminoazobenzene	---	ND
7,12-Dimethylbenz(a)anthracene	---	ND
a-,a-Dimethylphenethylamine	---	ND
Diphenylamine	---	ND
1,2-Diphenylhydrazine	---	ND
Ethyl methanesulfonate	---	ND
3-Methylcholanthrene	---	ND
Methyl methanesulfonate	---	ND
3-Methylcholanthrene	---	ND
2-Methylnaphthalene	0.66	ND
1-Naphthylamine	---	ND
2-Naphthylamine	---	ND
2-Nitroaniline	3.3	ND
3-Nitroaniline	3.3	ND
4-Nitroaniline	3.3	ND
N-Nitroso-di-n-butylamine	---	ND
N-Nitrosopiperidine	---	ND
Pentachlorobenzene	---	ND
Pentachloronitrobenzene	---	ND
Phenacetin	---	ND
2-Picoline	---	ND
Pronamide	---	ND
1,2,4,5-Tetrachlorobenzene	---	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SW 8270
Matrix: Soil

page 4 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Oolk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN:Mr. Jim Duncan

Lab Number: 880195
Sample No.: UF1 B-2 SS-3, 8.5'
Date Sampled: 1-26-88
Time Sampled: 1145
Date Extracted: 2-1-88
Date Analyzed: 2-9-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
Alpha-BHC	--*	ND
Gamma-BHC	—*	ND
Beta-BHC	0.4	ND
Heptachlor	0.2	ND
Delta-BHC	0.3	ND
Aldrin	0.2	ND
Heptachlor epoxide	0.2	ND
Endosulfan I	--*	ND
Dieldrin	0.3	ND
4,4'-DDE	0.6	ND
Endrin	--*	ND
Endosulfan II	--*	ND
4,4'-DDD	0.3	ND
4,4'-DDT	0.5	ND
Endosulfan Sulfate	0.6	ND
Endrin aldehyde	--*	ND
Endrin Ketone	--*	ND
Chlordane	4.0	ND
Methoxychlor	--*	ND
Toxaphene	4.0	ND
Aroclor-1016	4.0	ND
Aroclor-1221	4.0	ND
Aroclor-1232	4.0	ND
Aroclor-1242	4.0	ND
Aroclor-1248	4.0	ND
Aroclor-1254	4.0	ND
Aroclor-1260	4.0	ND

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SW 8270
Matrix: Soil

page 5 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988

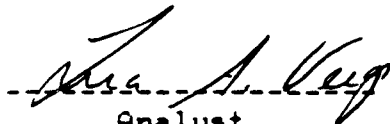
P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Dolk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880195
Sample No.: UF1 B-2 SS-3, 8.5'
Date Sampled: 1-26-88
Time Sampled: 1145
Date Extracted: 2-1-88
Date Analyzed: 2-9-88

Compound	Detection	ANALYTICAL RESULTS	
	Limits	mg/kg	
	mg/kg		
2-Chlorophenol	0.66		ND
2-Nitrophenol	0.66		ND
Phenol	0.66		ND
2,4-Dimethylphenol	0.66		ND
2,4-Dichlorophenol	0.66		ND
2,4,6-Trichlorophenol	0.66		ND
4-Chloro-3-methylphenol	1.3		ND
2,4-Dinitrophenol	3.3		ND
2,6-Dichlorophenol	--*		ND
2-Methyl-4,6-Dinitrophenol	3.3		ND
Pentachlorophenol	3.3		ND
4-Nitrophenol	3.3		ND
Benzoic Acid	3.3		ND
2-Methylphenol	0.66		ND
3- & 4-Methylphenol	0.66		ND
2,3,4,6-Tetrachlorophenol	--*		ND
2,4,5-Trichlorophenol	0.66		ND


Analyst


Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

CASE NARRATIVE

Sample(s) No.: 88010186-0199

Work Order Number 467

This group of samples was received at the Berkeley Laboratory on 1-27-88. It consisted of 14 soil samples for semivolatile organics analysis.

Relative percent differences for certain compounds exceeded the EPA recommended ranges. Corrective action was taken by re-extracting and reanalyzing the quality control sample.

Percent relative differences are within the EPA recommended ranges, although none of the spike compounds are detected in the sample.

Due to the matrix interferences, soil surrogate recoveries for samples 88010188 to 88010189 are diluted out.

All sample results are blank corrected.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil

page 1 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880196
Sample No.: UF1 B-3 SS-1 1.0'
Date Sampled: 1-26-88
Time Sampled: 1210
Date Extracted: 2-1-88
Date Analyzed: 2-9-88

Compound	Detection	ANALYTICAL RESULTS	
	Limits mg/kg	mg/kg	
1,3-Dichlorobenzene	0.66	ND	
1,4-Dichlorobenzene	0.66	ND	
Hexachloroethane	0.66	ND	
Bis(2-chloroethyl)ether	0.66	ND	
1,2-Dichlorobenzene	0.66	ND	
N-Nitrosodimethylamine	2.5	ND	
Bis(2-chloroisopropyl)ether	0.66	ND	
N-Nitrosodi-n-propyl amine	0.66	ND	
Hexachlorobutadiene	0.66	ND	
1,2,4-Trichlorobenzene	0.66	ND	
Nitrobenzene	0.66	ND	
Isophorone	0.66	ND	
Naphthalene	0.66	ND	
Bis(2-chloroethoxy)methane	0.66	ND	
2-Chloronaphthalene	0.66	ND	
Hexachlorocyclopentadiene	0.66	ND	
Acenaphthylene	0.66	ND	
Acenaphthene	0.66	ND	
Dimethyl phthalate	0.66	ND	
2,6-Dinitrotoluene	0.66	ND	
Fluorene	0.66	ND	
2,4-Dinitrotoluene	0.66	ND	
Diethyl phthalate	0.66	ND	
N-Nitrosodiphenylamine	0.66	ND	
Hexachlorobenzene	0.66	ND	

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 5

Date Received: January 27, 1988

Date Reported: March 3, 1988

P.O. No.

Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880196
Sample No.: UF1 B-3 SS-1 1.0'
Date Sampled: 1-26-88
Time Sampled: 1210
Date Extracted: 2-1-88
Date Analyzed: 2-9-88

Compound	Detection	ANALYTICAL RESULTS
	Limit mg/kg	mg/kg
Phenanthrene	0.66	ND
Anthracene	0.66	ND
Dibutyl phthalate	0.66	ND
Fluoranthene	0.66	ND
4-Chlorophenyl phenyl ether	0.66	ND
Pyrene	0.66	ND
Butyl Benzyl phthalate	0.66	ND
Bis(2-ethylhexyl) phthalate	0.66	ND
Chrysene	0.66	ND
4-Bromophenyl phenyl ether	0.66	ND
Benzo(a)anthracene	0.66	ND
Di-n-octylphthalate	0.66	ND
Benzo(b)fluoranthene	0.66	ND
Benzo(k)fluoranthene	0.66	ND
Benzidine	6.0	ND
3,3'-Dichlorobenzidine	1.3	ND
Benzo(a)pyrene	0.66	ND
Indeno(1,2,3-cd)pyrene	0.66	ND
Dibenzo(a,h)anthracene	0.66	ND
Benzo(ghi)perylene	0.66	ND
Benzyl Alcohol	1.3	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988

P.O. No.:
Job No.: AT077

For: ES:Atlanta/Oolk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880196
Sample No.: 0F1 B-3 SS-1 1.0'
Date Sampled: 1-26-88
Time Sampled: 1210
Date Extracted: 2-1-88
Date Analyzed: 2-9-88

Compound	Detection Limits mg/kg	Analytical Results mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	1.3	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	0.66	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a-,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	0.66	ND
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	3.3	ND
3-Nitroaniline	3.3	ND
4-Nitroaniline	3.3	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SW 8270
Matrix: Soil

page 4 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880196
Sample No.: UF1 B-3 SS-1 1.0'
Date Sampled: 1-26-88
Time Sampled: 1210
Date Extracted: 2-1-88
Date Analyzed: 2-9-88

Compound	Detection	ANALYTICAL RESULTS	
	Limits mg/kg	mg/kg	
Alpha-BHC	--*	ND	
Gamma-BHC	—*	ND	
Beta-BHC	0.4	ND	
Heptachlor	0.2	ND	
Delta-BHC	0.3	ND	
Aldrin	0.2	ND	
Heptachlor epoxide	0.2	ND	
Endosulfan I	--*	ND	
Dieldrin	0.3	ND	
4,4'-DDE	0.6	ND	
Endrin	--*	ND	
Endosulfan II	--*	ND	
4,4'-DDD	0.3	ND	
4,4'-DDT	0.5	ND	
Endosulfan Sulfate	0.6	ND	
Endrin aldehyde	--*	ND	
Endrin Ketone	--*	ND	
Chlordane	4.0	ND	
Methoxychlor	--*	ND	
Toxaphene	4.0	ND	
Aroclor-1016	4.0	ND	
Aroclor-1221	4.0	ND	
Aroclor-1232	4.0	ND	
Aroclor-1242	4.0	ND	
Aroclor-1248	4.0	ND	
Aroclor-1254	4.0	ND	
Aroclor-1260	4.0	ND	

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SW 8270
Matrix: Soil

page 5 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988

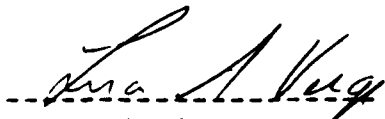
P.O. No.
Job No.: AT077

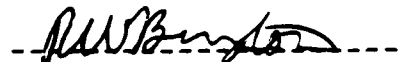
FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880196
Sample No.: UF1 B-3 SS-1 1.0'
Date Sampled: 1-26-88
Time Sampled: 1210
Date Extracted: 2-1-88
Date Analyzed: 2-9-88

Compound	Detection Limits mg/kg	ANALYTICAL RESULTS
		mg/kg
2-Chlorophenol	0.66	ND
2-Nitrophenol	0.66	ND
Phenol	0.66	ND
2,4-Dimethylphenol	0.66	ND
2,4-Dichlorophenol	0.66	ND
2,4,6-Trichlorophenol	0.66	ND
4-Chloro-3-methylphenol	1.3	ND
2,4-Dinitrophenol	3.3	ND
2,6-Dichlorophenol	--*	ND
2-Methyl-4,6-Dinitrophenol	3.3	ND
Pentachlorophenol	3.3	ND
4-Nitrophenol	3.3	ND
Benzoic Acid	3.3	ND
2-Methylphenol	0.66	ND
3- & 4-Methylphenol	0.66	ND
2,3,4,6-Tetrachlorophenol	--*	ND
2,4,5-Trichlorophenol	0.66	ND


Analyst


Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

CASE NARRATIVE

Sample(s) No.: 88010186-0199

Work Order Number 467

This group of samples was received at the Berkeley Laboratory on 1-27-88. It consisted of 14 soil samples for semivolatile organics analysis.

Relative percent differences for certain compounds exceeded the EPA recommended ranges. Corrective action was taken by re-extracting and reanalyzing the quality control sample.

Percent relative differences are within the EPA recommended ranges, although none of the spike compounds are detected in the sample.

Due to the matrix interferences, soil surrogate recoveries for samples 88010188 to 88010189 are diluted out.

All sample results are blank corrected.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil

page 1 of 3

Date Received: January 27, 1988
Date Reported: March 3, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880197
Sample No.: UF1 B-3 SS-2 3.5'
Date Sampled: 1-26-88
Time Sampled: 1250
Date Extracted: 2-1-88
Date Analyzed: 2-9-88

Compound	Detection Limits	ANALYTICAL RESULTS
	mg/kg	mg/kg
1,3-Dichlorobenzene	0.66	ND
1,4-Dichlorobenzene	0.66	ND
Hexachloroethane	0.66	ND
Bis(2-chloroethyl)ether	0.66	ND
1,2-Dichlorobenzene	0.66	ND
N-Nitrosodimethylamine	2.5	ND
Bis(2-chloroisopropyl)ether	0.66	ND
N-Nitrosodi-n-propyl amine	0.66	ND
Hexachlorobutadiene	0.66	ND
1,2,4-Trichlorobenzene	0.66	ND
Nitrobenzene	0.66	ND
Isophorone	0.66	ND
Naphthalene	0.66	ND
Bis(2-chloroethoxy)methane	0.66	ND
2-Chloronaphthalene	0.66	ND
Hexachlorocyclopentadiene	0.66	ND
Acenaphthylene	0.66	ND
Acenaphthene	0.66	ND
Dimethyl phthalate	0.66	ND
2,6-Dinitrotoluene	0.66	ND
Fluorene	0.66	ND
2,4-Dinitrotoluene	0.66	ND
Diethyl phthalate	0.66	ND
N-Nitrosodiphenylamine	0.66	ND
Hexachlorobenzene	0.66	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Dolk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880197
Sample No.: UF1 B-3 SS-2 3.5'
Date Sampled: 1-26-88
Time Sampled: 1250
Date Extracted: 2-1-88
Date Analyzed: 2-9-88

Compound	Detection	ANALYTICAL RESULTS	
	Limit mg/kg	mg/kg	
Phenanthrene	0.66	ND	
Anthracene	0.66	ND	
Dibutyl phthalate	0.66	ND	
Fluoranthene	0.66	ND	
4-Chlorophenyl phenyl ether	0.66	ND	
Pyrene	0.66	ND	
Butyl Benzyl phthalate	0.66	ND	
Bis(2-ethylhexyl) phthalate	0.66	ND	
Chrysene	0.66	ND	
4-Bromophenyl phenyl ether	0.66	ND	
Benzo(a)anthracene	0.66	ND	
Di-n-octylphthalate	0.66	ND	
Benzo(b)fluoranthene	0.66	ND	
Benzo(k)fluoranthene	0.66	ND	
Benzidine	6.0	ND	
3,3'-Dichlorobenzidine	1.3	ND	
Benzo(a)pyrene	0.66	ND	
Indeno(1,2,3-cd)pyrene	0.66	ND	
Dibenzo(a,h)anthracene	0.66	ND	
Benzo(ghi)perylene	0.66	ND	
Benzyl Alcohol	1.3	ND	

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988

P.O. No.:
Job No.: AT077

For: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880197
Sample No.: UF1 B-3 SS-2 3.5'
Date Sampled: 1-26-88
Time Sampled: 1250
Date Extracted: 2-1-88
Date Analyzed: 2-9-88

Compound	Detection	Analytical Results
	Limits mg/kg	
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	1.3	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	0.66	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a-,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	0.66	ND
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	3.3	ND
3-Nitroaniline	3.3	ND
4-Nitroaniline	3.3	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SW 8270
Matrix: Soil

page 4 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Folk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880197
Sample No.: UF1 B-3 SS-2 3 5'
Date Sampled: 1-26-88
Time Sampled: 1250
Date Extracted: 2-1-88
Date Analyzed: 2-9-88

Compound	Detection	ANALYTICAL RESULTS	
	Limits	mg/kg	
	mg/kg		
Alpha-BHC	--*	ND	
Gamma-BHC	—*	ND	
Beta-BHC	0.4	ND	
Heptachlor	0.2	ND	
Delta-BHC	0.3	ND	
Aldrin	0.2	ND	
Heptachlor epoxide	0.2	ND	
Endosulfan I	--*	ND	
Dieldrin	0.3	ND	
4,4'-DDE	0.6	ND	
Endrin	--*	ND	
Endosulfan II	--*	ND	
4,4'-DDD	0.3	ND	
4,4'-DDT	0.5	ND	
Endosulfan Sulfate	0.6	ND	
Endrin aldehyde	--*	ND	
Endrin Ketone	--*	ND	
Chlordane	4.0	ND	
Methoxychlor	--*	ND	
Toxaphene	4.0	ND	
Aroclor-1016	4.0	ND	
Aroclor-1221	4.0	ND	
Aroclor-1232	4.0	ND	
Aroclor-1242	4.0	ND	
Aroclor-1248	4.0	ND	
Aroclor-1254	4.0	ND	
Aroclor-1260	4.0	ND	

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SW 8270
Matrix: Soil

page 3 of 3

Date Received: January 27, 1988
Date Reported: March 3, 1988


P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880197
Sample No.: UF1 B-3 SS-2 3.5'
Date Sampled: 1-26-88
Time Sampled: 1250
Date Extracted: 2-1-88
Date Analyzed: 2-9-88

Compound	Detection	ANALYTICAL RESULTS	
	Limits mg/kg	mg/kg	
2-Chlorophenol	0.66	ND	
2-Nitrophenol	0.66	ND	
Phenol	0.66	ND	
2,4-Dimethylphenol	0.66	ND	
2,4-Dichlorophenol	0.66	ND	
2,4,6-Trichlorophenol	0.66	ND	
4-Chloro-3-methylphenol	1.3	ND	
2,4-Dinitrophenol	3.3	ND	
2,6-Dichlorophenol	--*	ND	
2-Methyl-4,6-Dinitrophenol	3.3	ND	
Pentachlorophenol	3.3	ND	
4-Nitrophenol	3.3	ND	
Benzoic Acid	3.3	ND	
2-Methylphenol	0.66	ND	
3- & 4-Methylphenol	0.66	ND	
2,3,4,6-Tetrachlorophenol	--*	ND	
2,4,5-Trichlorophenol	0.66	ND	


Analyst


Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

CASE NARRATIVE

Sample(s) No.: 88010186-0199

Work Order Number 467

This group of samples was received at the Berkeley Laboratory on 1-27-88. It consisted of 14 soil samples for semivolatile organics analysis.

Relative percent differences for certain compounds exceeded the EPA recommended ranges. Corrective action was taken by re-extracting and reanalyzing the quality control sample.

Percent relative differences are within the EPA recommended ranges, although none of the spike compounds are detected in the sample.

Due to the matrix interferences, soil surrogate recoveries for samples 88010188 to 88010189 are diluted out.

All sample results are blank corrected.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil

page 1 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880186
Sample No.: UF1 B-3 SS-3, 8.5'
Date Sampled: 1-26-88
Time Sampled: 1405
Date Extracted: 2-1-88
Date Analyzed: 2-8-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
1,3-Dichlorobenzene	0.66	ND
1,4-Dichlorobenzene	0.66	ND
Hexachloroethane	0.66	ND
Bis(2-chloroethyl)ether	0.66	ND
1,2-Dichlorobenzene	0.66	ND
N-Nitrosodimethylamine	2.5	ND
Bis(2-chloroisopropyl)ether	0.66	ND
N-Nitrosodi-n-propyl amine	0.66	ND
Hexachlorobutadiene	0.66	ND
1,2,4-Trichlorobenzene	0.66	ND
Nitrobenzene	0.66	ND
Isophorone	0.66	ND
Naphthalene	0.66	ND
Bis(2-chloroethoxy)methane	0.66	ND
2-Chloronaphthalene	0.66	ND
Hexachlorocyclopentadiene	0.66	ND
Acenaphthylene	0.66	ND
Acenaphthene	0.66	ND
Dimethyl phthalate	0.66	ND
2,6-Dinitrotoluene	0.66	ND
Fluorene	0.66	ND
2,4-Dinitrotoluene	0.66	ND
Diethyl phthalate	0.66	ND
N-Nitrosodiphenylamine	0.66	ND
Hexachlorobenzene	0.66	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 3

Date Received: January 27, 1988
Date Reported: March 3, 1988

P.O. No. :
Job No. : AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 980186
Sample No.: UF1 B-3 SS-3, 8.5'
Date Sampled: 1-26-88
Time Sampled: 1405
Date Extracted: 2-1-88
Date Analyzed: 2-8-88

Compound	Detection	ANALYTICAL RESULTS
	Limit mg/kg	mg/kg
Phenanthrene	0.66	ND
Anthracene	0.66	ND
Dibutyl phthalate	0.66	ND
Fluoranthene	0.66	ND
4-Chlorophenyl phenyl ether	0.66	ND
Pyrene	0.66	ND
Butyl Benzyl phthalate	0.66	ND
Bis(2-ethylhexyl) phthalate	0.66	ND
Chrysene	0.66	ND
4-Bromophenyl phenyl ether	0.66	ND
Benzo(a)anthracene	0.66	ND
Di-n-octylphthalate	0.66	ND
Benzo(b)fluoranthene	0.66	ND
Benzo(k)fluoranthene	0.66	ND
Benzidine	6.0	ND
3,3'-Dichlorobenzidine	1.3	ND
Benzo(a)pyrene	0.66	ND
Indeno(1,2,3-cd)pyrene	0.66	ND
Dibenzo(a,h)anthracene	0.66	ND
Benzo(ghi)perylene	0.66	ND
Benzyl Alcohol	1.3	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988

P.O. No.
Job No. : RT077

For: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880186
Sample No.: UF1 B-3 SS-3, 8.5'
Date Sampled: 1-26-88
Time Sampled: 1405
Date Extracted: 2-1-88
Date Analyzed: 2-8-88

Compound	Detection Limits mg/kg	Analytical Results mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	1.3	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	0.66	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a-,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	0.66	ND
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	3.3	ND
3-Nitroaniline	3.3	ND
4-Nitroaniline	3.3	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SW 8270
Matrix: Soil

page 4 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880186
Sample No.: VF1 B-3 SS-3, 8.5'
Date Sampled: 1-26-88
Time Sampled: 1405
Date Extracted: 2-1-88
Date Analyzed: 2-8-88

Compound	Detection	ANALYTICAL RESULTS	
	Limits mg/kg	mg/kg	
Alpha-BHC	--*	ND	
Gamma-BHC	—*	ND	
Beta-BHC	0.4	ND	
Heptachlor	0.2	ND	
Delta-BHC	0.3	ND	
Aldrin	0.2	ND	
Heptachlor epoxide	0.2	ND	
Endosulfan I	--*	ND	
Dieldrin	0.3	ND	
4,4'-DDE	0.6	ND	
Endrin	--*	ND	
Endosulfan II	--*	ND	
4,4'-DDD	0.3	ND	
4,4'-DDT	0.5	ND	
Endosulfan Sulfate	0.6	ND	
Endrin aldehyde	--*	ND	
Endrin Ketone	--*	ND	
Chlordane	4.0	ND	
Methoxychlor	--*	ND	
Toxaphene	4.0	ND	
Aroclor-1016	4.0	ND	
Aroclor-1221	4.0	ND	
Aroclor-1232	4.0	ND	
Aroclor-1242	4.0	ND	
Aroclor-1248	4.0	ND	
Aroclor-1254	4.0	ND	
Aroclor-1260	4.0	ND	

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SW 8270
Matrix: Soil

page 5 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988

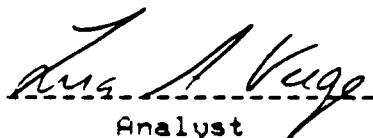
P.O. No.:
Job No.: AT077

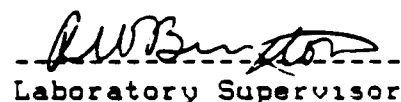
FOR: ES:Atlanta/Oolk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880186
Sample No.: UF1 B-3 SS-3, 8.5'
Date Sampled: 1-26-88
Time Sampled: 1405
Date Extracted: 2-1-88
Date Analyzed: 2-8-88

Compound	Detection Limits mg/kg	ANALYTICAL RESULTS
		mg/kg
2-Chlorophenol	0.66	ND
2-Nitrophenol	0.66	ND
Phenol	0.66	ND
2,4-Dimethylphenol	0.66	ND
2,4-Dichlorophenol	0.66	ND
2,4,6-Trichlorophenol	0.66	ND
4-Chloro-3-methylphenol	1.3	ND
2,4-Dinitrophenol	3.3	ND
2,6-Dichlorophenol	--*	ND
2-Methyl-4,6-Dinitrophenol	3.3	ND
Pentachlorophenol	3.3	ND
4-Nitrophenol	3.3	ND
Benzoic Acid	3.3	ND
2-Methylphenol	0.66	ND
3- & 4-Methylphenol	0.66	ND
2,3,4,6-Tetrachlorophenol	--*	ND
2,4,5-Trichlorophenol	0.66	ND


Analyst


Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

CASE NARRATIVE

Sample(s) No.: 88010186-0199

Work Order Number 467

This group of samples was received at the Berkeley Laboratory on 1-27-88. It consisted of 14 soil samples for semivolatile organics analysis.

Relative percent differences for certain compounds exceeded the EPA recommended ranges. Corrective action was taken by re-extracting and reanalyzing the quality control sample.

Percent relative differences are within the EPA recommended ranges, although none of the spike compounds are detected in the sample.

Due to the matrix interferences, soil surrogate recoveries for samples 88010188 to 88010189 are diluted out.

All sample results are blank corrected.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil

page 1 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880189
Sample No.: UF1 B-4 SS1, 0.5'
Date Sampled: 1-26-88
Time Sampled: 1430
Date Extracted: 2-1-88
Date Analyzed: 2-16-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
1,3-Dichlorobenzene	33	ND
1,4-Dichlorobenzene	33	ND
Hexachloroethane	33	ND
Bis(2-chloroethyl)ether	33	ND
1,2-Dichlorobenzene	33	ND
N-Nitrosodimethylamine	130	ND
Bis(2-chloroisopropyl)ether	33	ND
N-Nitrosodi-n-propyl amine	33	ND
Hexachlorobutadiene	33	ND
1,2,4-Trichlorobenzene	33	ND
Nitrobenzene	33	ND
Isophorone	33	ND
Naphthalene	33	ND
Bis(2-chloroethoxy)methane	33	ND
2-Chloronaphthalene	33	ND
Hexachlorocyclopentadiene	33	ND
Acenaphthylene	33	ND
Acenaphthene	33	ND
Dimethyl phthalate	33	ND
2,6-Dinitrotoluene	33	ND
Fluorene	33	ND
2,4-Dinitrotoluene	33	ND
Diethyl phthalate	33	ND
N-Nitrosodiphenylamine	33	ND
Hexachlorobenzene	33	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 3

Date Received: January 27, 1988
Date Reported: March 3, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880189
Sample No.: UF1 B-4 SS1, 0.5'
Date Sampled: 1-26-88
Time Sampled: 1430
Date Extracted: 2-1-88
Date Analyzed: 2-16-88

Compound	Detection Limit mg/kg	ANALYTICAL RESULTS	
		mg/kg	
Phenanthrene	33	ND	
Anthracene	33	ND	
Dibutyl phthalate	33	ND	
Fluoranthene	33	ND	
4-Chlorophenyl phenyl ether	33	ND	
Pyrene	33	ND	
Butyl Benzyl phthalate	33	ND	
Bis(2-ethylhexyl) phthalate	33	ND	
Chrysene	33	ND	
4-Bromophenyl phenyl ether	33	ND	
Benzo(a)anthracene	33	ND	
Di-n-octylphthalate	33	ND	
Benzo(b)fluoranthene	33	ND	
Benzo(k)fluoranthene	33	ND	
Benzidine	300	ND	
3,3'-Dichlorobenzidine	65	ND	
Benzo(a)pyrene	33	ND	
Indeno(1,2,3-cd)pyrene	33	ND	
Dibenzo(a,h)anthracene	33	ND	
Benzo(ghi)perylene	33	ND	
Benzyl Alcohol	65	ND	

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988

P.O. No.:
Job No.: AT077

For: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880189
Sample No.: UF1 B-4 SS1, 0.5'
Date Sampled: 1-26-88
Time Sampled: 1430
Date Extracted: 2-1-88
Date Analyzed: 2-16-88

Compound	Detection Limits mg/kg	Analytical Results mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	65	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	33	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	33	ND
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	160	ND
3-Nitroaniline	160	ND
4-Nitroaniline	160	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SW 8270
Matrix: Soil

page 4 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988

P.O. No.:
Job No.: AT077

FOR: ES Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880189
Sample No.: UF1 B-4 SS1, 0.5'
Date Sampled: 1-26-88
Time Sampled: 1430
Date Extracted: 2-1-88
Date Analyzed: 2-16-88

Compound	Detection	ANALYTICAL RESULTS
	Limits	
	mg/kg	mg/kg
Alpha-BHC	--*	ND
Gamma-BHC	---	ND
Beta-BHC	20	ND
Heptachlor	10	ND
Delta-BHC	15	ND
Aldrin	10	ND
Heptachlor epoxide	10	ND
Endosulfan I	--*	ND
Dieldrin	15	ND
4,4'-DDE	30	ND
Endrin	--*	ND
Endosulfan II	--*	ND
4,4'-DDD	15	ND
4,4'-DDT	25	ND
Endosulfan Sulfate	30	ND
Endrin aldehyde	--*	ND
Endrin Ketone	--*	ND
Chlordane	200	ND
Methoxychlor	--*	ND
Toxaphene	200	ND
Aroclor-1016	200	ND
Aroclor-1221	200	ND
Aroclor-1232	200	ND
Aroclor-1242	200	ND
Aroclor-1248	200	ND
Aroclor-1254	200	ND
Aroclor-1260	200	ND

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SW 8270
Matrix: Soil

page 5 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988

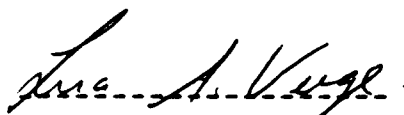
P.O. No.:
Job No.: AT077

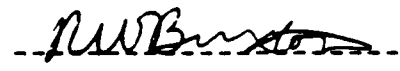
FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880189
Sample No.: UF1 B-4 SS1, 0.5'
Date Sampled: 1-26-88
Time Sampled: 1430
Date Extracted: 2-1-88
Date Analyzed: 2-16-88

Compound	Detection Limits mg/kg	ANALYTICAL RESULTS	
		mg/kg	
2-Chlorophenol	33	ND	
2-Nitrophenol	33	ND	
Phenol	33	ND	
2,4-Dimethylphenol	33	ND	
2,4-Dichlorophenol	33	ND	
2,4,6-Trichlorophenol	33	ND	
4-Chloro-3-methylphenol	65	ND	
2,4-Dinitrophenol	160	ND	
2,6-Dichlorophenol	--*	ND	
2-Methyl-4,6-Dinitrophenol	160	ND	
Pentachlorophenol	160	ND	
4-Nitrophenol	160	ND	
Benzoic Acid	160	ND	
2-Methylphenol	33	ND	
3- & 4-Methylphenol	33	ND	
2,3,4,6-Tetrachlorophenol	--*	ND	
2,4,5-Trichlorophenol	33	ND	


Analyst


Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

CASE NARRATIVE

Sample(s) No.: 88010186-0199

Work Order Number 467

This group of samples was received at the Berkeley Laboratory on 1-27-88. It consisted of 14 soil samples for semivolatile organics analysis.

Relative percent differences for certain compounds exceeded the EPA recommended ranges. Corrective action was taken by re-extracting and reanalyzing the quality control sample.

Percent relative differences are within the EPA recommended ranges, although none of the spike compounds are detected in the sample.

Due to the matrix interferences, soil surrogate recoveries for samples 88010188 to 88010189 are diluted out.

All sample results are blank corrected.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil

page 1 of 3

Date Received: January 27, 1988
Date Reported: March 3, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 380198
Sample No.: UF1 B-4 SS 2, 3.5'
Date Sampled: 1-26-88
Time Sampled: 1530
Date Extracted: 2-1-88
Date Analyzed: 2-9-88

Compound	Detection Limits	ANALYTICAL RESULTS
	mg/kg	mg/kg
1,3-Dichlorobenzene	0.66	ND
1,4-Dichlorobenzene	0.66	ND
Hexachloroethane	0.66	ND
Bis(2-chloroethyl)ether	0.66	ND
1,2-Dichlorobenzene	0.66	ND
N-Nitrosodimethylamine	2.5	ND
Bis(2-chloroisopropyl)ether	0.66	ND
N-Nitrosodi-n-propyl amine	0.66	ND
Hexachlorobutadiene	0.66	ND
1,2,4-Trichlorobenzene	0.66	ND
Nitrobenzene	0.66	ND
Isophorone	0.66	ND
Naphthalene	0.66	ND
Bis(2-chloroethoxy)methane	0.66	ND
2-Chloronaphthalene	0.66	ND
Hexachlorocyclopentadiene	0.66	ND
Acenaphthylene	0.66	ND
Acenaphthene	0.66	ND
Dimethyl phthalate	0.66	ND
2,6-Dinitrotoluene	0.66	ND
Fluorene	0.66	ND
2,4-Dinitrotoluene	0.66	ND
Diethyl phthalate	0.66	ND
N-Nitrosodiphenylamine	0.66	ND
Hexachlorobenzene	0.66	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880198
Sample No.: UF1 B-4 SS 2, 3.5'
Date Sampled: 1-26-88
Time Sampled: 1530
Date Extracted: 2-1-88
Date Analyzed: 2-9-88

Compound	Detection	ANALYTICAL RESULTS
	Limit mg/kg	mg/kg
Phenanthrene	0.66	ND
Anthracene	0.66	ND
Dibutyl phthalate	0.66	ND
Fluoranthene	0.66	ND
4-Chlorophenyl phenyl ether	0.66	ND
Pyrene	0.66	ND
Butyl Benzyl phthalate	0.66	ND
Bis(2-ethylhexyl) phthalate	0.66	ND
Chrysene	0.66	ND
4-Bromophenyl phenyl ether	0.66	ND
Benzo(a)anthracene	0.66	ND
Di-n-octylphthalate	0.66	ND
Benzo(b)fluoranthene	0.66	ND
Benzo(k)fluoranthene	0.66	ND
Benzidine	6.0	ND
3,3'-Dichlorobenzidine	1.3	ND
Benzo(a)pyrene	0.66	ND
Indeno(1,2,3-cd)pyrene	0.66	ND
Dibenzo(a,h)anthracene	0.66	ND
Benzo(ghi)perylene	0.66	ND
Benzyl Alcohol	1.3	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988

P.O. No.:
Job No.: AT077

For: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880198
Sample No.: UF1 B-4 SS 2, 3.5'
Date Sampled: 1-26-88
Time Sampled: 1530
Date Extracted: 2-1-88
Date Analyzed: 2-9-88

Compound	Detection Limits mg/kg	Analytical Results mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	1.3	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	0.66	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a-,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	0.66	ND
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	3.3	ND
3-Nitroaniline	3.3	ND
4-Nitroaniline	3.3	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SW 8270
Matrix: Soil

page 4 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988

P.O. No.:
Job No.: AT077

FOR: ES Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880198
Sample No.: DF1 B-4 SS 2, 3.5'
Date Sampled: 1-26-88
Time Sampled: 1530
Date Extracted: 2-1-88
Date Analyzed: 2-9-88

Compound	Detection Limits mg/kg	ANALYTICAL RESULTS	
		mg/kg	
Alpha-BHC	--*	ND	
Gamma-BHC	—*	ND	
Beta-BHC	0.4	ND	
Heptachlor	0.2	ND	
Delta-BHC	0.3	ND	
Aldrin	0.2	ND	
Heptachlor epoxide	0.2	ND	
Endosulfan I	--*	ND	
Dieldrin	0.3	ND	
4,4'-DDE	0.6	ND	
Endrin	--*	ND	
Endosulfan II	--*	ND	
4,4'-DDD	0.3	ND	
4,4'-DDT	0.5	ND	
Endosulfan Sulfate	0.6	ND	
Endrin aldehyde	--*	ND	
Endrin Ketone	--*	ND	
Chlordane	4.0	ND	
Methoxychlor	--*	ND	
Toxaphene	4.0	ND	
Aroclor-1016	4.0	ND	
Aroclor-1221	4.0	ND	
Aroclor-1232	4.0	ND	
Aroclor-1242	4.0	ND	
Aroclor-1248	4.0	ND	
Aroclor-1254	4.0	ND	
Aroclor-1260	4.0	ND	

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SW 8270
Matrix: Soil

page 5 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988

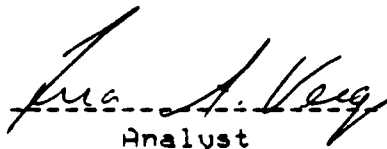
P.O. No.
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880198
Sample No.: UF1 B-4 SS 2, 3.5'
Date Sampled: 1-26-88
Time Sampled: 1530
Date Extracted: 2-1-88
Date Analyzed: 2-9-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
2-Chlorophenol	0.66	ND
2-Nitrophenol	0.66	ND
Phenol	0.66	ND
2,4-Dimethylphenol	0.66	ND
2,4-Dichlorophenol	0.66	ND
2,4,6-Trichlorophenol	0.66	ND
4-Chloro-3-methylphenol	1.3	ND
2,4-Dinitrophenol	3.3	ND
2,6-Dichlorophenol	--*	ND
2-Methyl-4,6-Dinitrophenol	3.3	ND
Pentachlorophenol	3.3	ND
4-Nitrophenol	3.3	ND
Benzoic Acid	3.3	ND
2-Methylphenol	0.66	ND
3- & 4-Methylphenol	0.66	ND
2,3,4,6-Tetrachlorophenol	--*	ND
2,4,5-Trichlorophenol	0.66	ND


Analyst


Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

CASE NARRATIVE

Sample(s) No.: 88010186-0199

Work Order Number 467

This group of samples was received at the Berkeley Laboratory on 1-27-88. It consisted of 14 soil samples for semivolatile organics analysis.

Relative percent differences for certain compounds exceeded the EPA recommended ranges. Corrective action was taken by re-extracting and reanalyzing the quality control sample.

Percent relative differences are within the EPA recommended ranges, although none of the spike compounds are detected in the sample.

Due to the matrix interferences, soil surrogate recoveries for samples 88010188 to 88010189 are diluted out.

All sample results are blank corrected.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil

page 1 of 1

Date Received: January 27, 1988
Date Reported: March 3, 1988
DATE REISSUED: March 10, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880199
Sample No.: UF1 B-4 SS 3, 8.5'
Date Sampled: 1-26-88
Time Sampled: 1545
Date Extracted: 2-1-88
Date Analyzed: 2-12-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
1,3-Dichlorobenzene	6.6	ND
1,4-Dichlorobenzene	6.6	ND
Hexachloroethane	6.6	ND
Bis(2-chloroethyl)ether	6.6	ND
1,2-Dichlorobenzene	6.6	ND
N-Nitrosodimethylamine	25	ND
Bis(2-chloroisopropyl)ether	6.6	ND
N-Nitrosodi-n-propyl amine	6.6	ND
Hexachlorobutadiene	6.6	ND
1,2,4-Trichlorobenzene	6.6	ND
Nitrobenzene	6.6	ND
Isophorone	6.6	ND
Naphthalene	6.6	ND
Bis(2-chloroethoxy)methane	6.6	ND
2-Chloronaphthalene	6.6	ND
Hexachlorocyclopentadiene	6.6	ND
Acenaphthylene	6.6	ND
Acenaphthene	6.6	ND
Dimethyl phthalate	6.6	ND
2,6-Dinitrotoluene	6.6	ND
Fluorene	6.6	ND
2,4-Dinitrotoluene	6.6	ND
Diethyl phthalate	6.6	ND
N-Nitrosodiphenylamine	6.6	ND
Hexachlorobenzene	6.6	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988
DATE REISSUED: March 10, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta-Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880199
Sample No.: UF1 B-4 SS 3, 6.5'
Date Sampled: 1-26-88
Time Sampled: 1545
Date Extracted: 2-1-88
Date Analyzed: 2-12-88

Compound	Detection	ANALYTICAL RESULTS
	Limit mg/kg	mg/kg
Phenanthrene	6.6	ND
Anthracene	6.6	ND
Dibutyl phthalate	6.6	ND
Fluoranthene	6.6	ND
4-Chlorophenyl phenyl ether	6.6	ND
Pyrene	6.6	ND
Butyl Benzyl phthalate	6.6	ND
Bis(2-ethylhexyl) phthalate	6.6	ND
Chrysene	6.6	ND
4-Bromophenyl phenyl ether	6.6	ND
Benzo(a)anthracene	6.6	ND
Di-n-octylphthalate	6.6	ND
Benzo(b)fluoranthene	6.6	ND
Benzo(k)fluoranthene	6.6	ND
Benzidine	60	ND
3,3'-Dichlorobenzidine	13	ND
Benzo(a)pyrene	6.6	ND
Indeno(1,2,3-cd)pyrene	6.6	ND
Dibenzo(a,h)anthracene	6.6	ND
Benzo(ghi)perylene	6.6	ND
Benzyl Alcohol	13	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988
DATE REISSUED: March 10, 1988

P.O. No. 1000000000
Job No. AT027

For: ES:Atlanta/Folk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880199
Sample No.: UF1 B-4 SS 3, 3.5'
Date Sampled: 1-26-88
Time Sampled: 1545
Date Extracted: 2-1-88
Date Analyzed: 2-12-88

Compound	Detection Limits mg/kg	Analytical Results mg/kg
Acetophenone	---	ND
Aniline	---	ND
4-Aminobiphenyl	---	ND
4-Chloroaniline	13	ND
1-Chloronaphthalene	---	ND
Dibenzofuran	6.6	ND
p-Dimethylaminoazobenzene	---	ND
7,12-Dimethylbenz(a)anthracene	---	ND
a-,a-Dimethylphenethylamine	---	ND
Diphenylamine	---	ND
1,2-Diphenylhydrazine	---	ND
Ethyl methanesulfonate	---	ND
3-Methylcholanthrene	---	ND
Methyl methanesulfonate	---	ND
3-Methylcholanthrene	---	ND
2-Methylnaphthalene	6.6	ND
1-Naphthylamine	---	ND
2-Naphthylamine	---	ND
2-Nitroaniline	33	ND
3-Nitroaniline	33	ND
4-Nitroaniline	33	ND
N-Nitroso-di-n-butylamine	---	ND
N-Nitrosopiperidine	---	ND
Pentachlorobenzene	---	ND
Pentachloronitrobenzene	---	ND
Phenacetin	---	ND
2-Picoline	---	ND
Pronamide	---	ND
1,2,4,5-Tetrachlorobenzene	---	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SW 8270
Matrix: Soil

page 4 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988
DATE REISSUED: March 10, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880199
Sample No. UF1 B-4 SS 3, 8.5'
Date Sampled: 1-26-88
Time Sampled: 1545
Date Extracted: 2-1-88
Date Analyzed: 2-12-88

Compound	Detection	ANALYTICAL RESULTS	
	Limits	mg/kg	
	mg/kg		
Alpha-BHC	--*	ND	
Gamma-BHC	—*	ND	
Beta-BHC	4	ND	
Heptachlor	2	ND	
Delta-BHC	3	ND	
Aldrin	2	ND	
Heptachlor epoxide	2	ND	
Endosulfan I	--*	ND	
Dieldrin	3	ND	
4,4'-DDE	6	ND	
Endrin	--*	ND	
Endosulfan II	--*	ND	
4,4'-DDD	3	ND	
4,4'-DDT	5	ND	
Endosulfan Sulfate	6	ND	
Endrin aldehyde	--*	ND	
Endrin Ketone	--*	ND	
Chlordane	40	ND	
Methoxychlor	--*	ND	
Toxaphene	40	ND	
Aroclor-1016	40	ND	
Aroclor-1221	40	ND	
Aroclor-1232	40	ND	
Aroclor-1242	40	ND	
Aroclor-1248	40	ND	
Aroclor-1254	40	ND	
Aroclor-1260	40	ND	

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SW 8270
Matrix: Soil

page 5 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988
DATE REISSUED: March 10, 1988

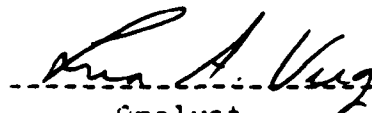
P.O. No.:
Job No.: AT077

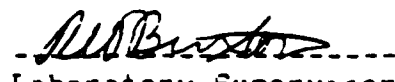
FOR: ES: Atlanta-Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880199
Sample No.: UF1 B-4 SS 3, 8.5'
Date Sampled: 1-26-88
Time Sampled: 1545
Date Extracted: 2-1-88
Date Analyzed: 2-12-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
2-Chlorophenol	6.6	ND
2-Nitrophenol	6.6	ND
Phenol	6.6	ND
2,4-Dimethylphenol	6.6	ND
2,4-Dichlorophenol	6.6	ND
2,4,6-Trichlorophenol	6.6	ND
4-Chloro-3-methylphenol	13	ND
2,4-Dinitrophenol	33	ND
2,6-Dichlorophenol	--*	ND
2-Methyl-4,6-Dinitrophenol	33	ND
Pentachlorophenol	33	ND
4-Nitrophenol	33	ND
Benzoic Acid	33	ND
2-Methylphenol	6.6	ND
3- & 4-Methylphenol	6.6	ND
2,3,4,6-Tetrachlorophenol	--*	ND
2,4,5-Trichlorophenol	6.6	ND


Analyst


Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

CASE NARRATIVE

Sample(s) No.: 88010186-0199

Work Order Number 467

This group of samples was received at the Berkeley Laboratory on 1-27-88. It consisted of 14 soil samples for semivolatile organics analysis.

Relative percent differences for certain compounds exceeded the EPA recommended ranges. Corrective action was taken by re-extracting and reanalyzing the quality control sample.

Percent relative differences are within the EPA recommended ranges, although none of the spike compounds are detected in the sample.

Due to the matrix interferences, soil surrogate recoveries for samples 88010188 to 88010189 are diluted out.

All sample results are blank corrected.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil

page 1 of 5

Date Received: January 28, 1988
Date Reported: February 28, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880209
Sample No.: VF1 B-5 SS1 0'
Date Sampled: 1-27-88
Time Sampled: 1030
Date Extracted: 2-2-88
Date Analyzed: 2-22-88

Compound	Detection	ANALYTICAL RESULTS	
	Limits mg/kg	mg/kg	
1,3-Dichlorobenzene	0.66	ND	
1,4-Dichlorobenzene	0.66	ND	
Hexachloroethane	0.66	ND	
Bis(2-chloroethyl)ether	0.66	ND	
1,2-Dichlorobenzene	0.66	ND	
N-Nitrosodimethylamine	2.5	ND	
Bis(2-chloroisopropyl)ether	0.66	ND	
N-Nitrosodi-n-propyl amine	0.66	ND	
Hexachlorobutadiene	0.66	ND	
1,2,4-Trichlorobenzene	0.66	ND	
Nitrobenzene	0.66	ND	
Isophorone	0.66	ND	
Naphthalene	0.66	ND	
Bis(2-chloroethoxy)methane	0.66	ND	
2-Chloronaphthalene	0.66	ND	
Hexachlorocyclopentadiene	0.66	ND	
Acenaphthylene	0.66	ND	
Acenaphthene	0.66	ND	
Dimethyl phthalate	0.66	ND	
2,6-Dinitrotoluene	0.66	ND	
Fluorene	0.66	ND	
2,4-Dinitrotoluene	0.66	ND	
Diethyl phthalate	0.66	ND	
N-Nitrosodiphenylamine	0.66	ND	
Hexachlorobenzene	0.66	ND	

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 5

Date Received: January 28, 1988
Date Reported: February 28, 1988

P.O. No.:
Job No.: AT077

FOR: ES: Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880209
Sample No.: UF1 B-5 SS1 0'
Date Sampled: 1-27-88
Time Sampled: 1030
Date Extracted: 2-2-88
Date Analyzed: 2-22-88

Compound	Detection	ANALYTICAL RESULTS	
	Limit mg/kg	mg/kg	
Phenanthrene	0.66	ND	
Anthracene	0.66	ND	
Dibutyl phthalate	0.66	ND	
Fluoranthene	0.66	ND	
4-Chlorophenyl phenyl ether	0.66	ND	
Pyrene	0.66	ND	
Butyl Benzyl phthalate	0.66	ND	
Bis(2-ethylhexyl) phthalate	0.66	ND	
Chrysene	0.66	ND	
4-Bromophenyl phenyl ether	0.66	ND	
Benzo(a)anthracene	0.66	ND	
Di-n-octylphthalate	0.66	ND	
Benzo(b)fluoranthene	0.66	ND	
Benzo(k)fluoranthene	0.66	ND	
Benzidine	6.0	ND	
3,3'-Dichlorobenzidine	1.3	ND	
Benzo(a)pyrene	0.66	ND	
Indeno(1,2,3-cd)pyrene	0.66	ND	
Dibenzo(a,h)anthracene	0.66	ND	
Benzo(ghi)perylene	0.66	ND	
Benzyl Alcohol	1.3	ND	

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: January 28, 1988
Date Reported: February 28, 1988

P.O. No.:
Job No.: AT077

For: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880209
Sample No.: UF1 B-5 SS1 0'
Date Sampled: 1-27-88
Time Sampled: 1030
Date Extracted: 2-2-88
Date Analyzed: 2-22-88

Compound	Detection Limits mg/kg	Analytical Results mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	1.3	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	0.66	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a-,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	0.66	ND
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	3.3	ND
3-Nitroaniline	3.3	ND
4-Nitroaniline	3.3	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SW 9270
Matrix: Soil

page 4 of 5

Date Received: January 28, 1988
Date Reported: February 28, 1988

P.O. No. :
Job No. : AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN:Mr. Jim Duncan

Lab Number: 880209
Sample No.: UF1 B-5 SS1 0'
Date Sampled: 1-27-88
Time Sampled: 1030
Date Extracted: 2-2-88
Date Analyzed: 2-22-88

Compound	Detection Limits mg/kg	ANALYTICAL RESULTS	
		mg/kg	
Alpha-BHC	--*	ND	
Gamma-BHC	---	ND	
Beta-BHC	0.4	ND	
Heptachlor	0.2	ND	
Delta-BHC	0.3	ND	
Aldrin	0.2	ND	
Heptachlor epoxide	0.2	ND	
Endosulfan I	--*	ND	
Dieldrin	0.3	ND	
4,4'-DDE	0.6	ND	
Endrin	--*	ND	
Endosulfan II	--*	ND	
4,4'-DDD	0.3	ND	
4,4'-DDT	0.5	ND	
Endosulfan Sulfate	0.6	ND	
Endrin aldehyde	--*	ND	
Endrin Ketone	--*	ND	
Chlordane	4.0	ND	
Methoxychlor	--*	ND	
Toxaphene	4.0	ND	
Aroclor-1016	4.0	ND	
Aroclor-1221	4.0	ND	
Aroclor-1232	4.0	ND	
Aroclor-1242	4.0	ND	
Aroclor-1248	4.0	ND	
Aroclor-1254	4.0	ND	
Aroclor-1260	4.0	ND	

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SW 8270
Matrix: Soil

page 5 of 5

Date Received: January 28, 1988
Date Reported: February 28, 1988

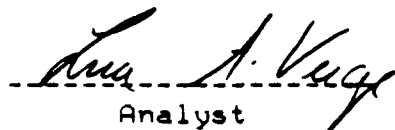
P.O. No.:
Job No.: AT077

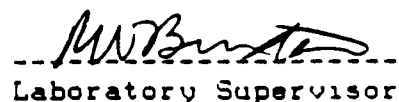
FOR: ES:Atlanta/Folk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880209
Sample No.: UF1 B-5 SS1 0'
Date Sampled: 1-27-88
Time Sampled: 1030
Date Extracted: 2-2-88
Date Analyzed: 2-22-88

Compound	Detection Limits mg/kg	ANALYTICAL RESULTS
		mg/kg
2-Chlorophenol	0.66	ND
2-Nitrophenol	0.66	ND
Phenol	0.66	ND
2,4-Dimethylphenol	0.66	ND
2,4-Dichlorophenol	0.66	ND
2,4,6-Trichlorophenol	0.66	ND
4-Chloro-3-methylphenol	1.3	ND
2,4-Dinitrophenol	3.3	ND
2,6-Dichlorophenol	--*	ND
2-Methyl-4,6-Dinitrophenol	3.3	ND
Pentachlorophenol	3.3	ND
4-Nitrophenol	3.3	ND
Benzoic Acid	3.3	ND
2-Methylphenol	0.66	ND
3- & 4-Methylphenol	0.66	ND
2,3,4,6-Tetrachlorophenol	--*	ND
2,4,5-Trichlorophenol	0.66	ND


Analyst


Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil

page 1 of 3

Date Received: January 28, 1988
Date Reported: February 28, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880210
Sample No.: UF1 B-5 SS2 3.5'
Date Sampled: 1-27-88
Time Sampled: 1130
Date Extracted: 2-2-88
Date Analyzed: 2-23-88

Compound	Detection	ANALYTICAL RESULTS	
	Limits		
	mg/kg	mg/kg	
1,3-Dichlorobenzene	0.66	ND	
1,4-Dichlorobenzene	0.66	ND	
Hexachloroethane	0.66	ND	
Bis(2-chloroethyl)ether	0.66	ND	
1,2-Dichlorobenzene	0.66	ND	
N-Nitrosodimethylamine	2.5	ND	
Bis(2-chloroisopropyl)ether	0.66	ND	
N-Nitrosodi-n-propyl amine	0.66	ND	
Hexachlorobutadiene	0.66	ND	
1,2,4-Trichlorobenzene	0.66	ND	
Nitrobenzene	0.66	ND	
Isophorone	0.66	ND	
Naphthalene	0.66	ND	
Bis(2-chloroethoxy)methane	0.66	ND	
2-Chloronaphthalene	0.66	ND	
Hexachlorocyclopentadiene	0.66	ND	
Acenaphthylene	0.66	ND	
Acenaphthene	0.66	ND	
Dimethyl phthalate	0.66	ND	
2,6-Dinitrotoluene	0.66	ND	
Fluorene	0.66	ND	
2,4-Dinitrotoluene	0.66	ND	
Diethyl phthalate	0.66	ND	
N-Nitrosodiphenylamine	0.66	ND	
Hexachlorobenzene	0.66	ND	

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 5

Date Received: January 28, 1988
Date Reported: February 28, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880210
Sample No.: UF1 B-5 SS2 3.5'
Date Sampled: 1-27-88
Time Sampled: 1130
Date Extracted: 2-2-88
Date Analyzed: 2-23-88

Compound	Detection	ANALYTICAL RESULTS	
	Limit mg/kg	mg/kg	
Phenanthrene	0.66	ND	
Anthracene	0.66	ND	
Dibutyl phthalate	0.66	ND	
Fluoranthene	0.66	ND	
4-Chlorophenyl phenyl ether	0.66	ND	
Pyrene	0.66	ND	
Butyl Benzyl phthalate	0.66	ND	
Bis(2-ethylhexyl) phthalate	0.66	ND	
Chrysene	0.66	ND	
4-Bromophenyl phenyl ether	0.66	ND	
Benzo(a)anthracene	0.66	ND	
Di-n-octylphthalate	0.66	ND	
Benzo(b)fluoranthene	0.66	ND	
Benzo(k)fluoranthene	0.66	ND	
Benzidine	6.0	ND	
3,3'-Dichlorobenzidine	1.3	ND	
Benzo(a)pyrene	0.66	ND	
Indeno(1,2,3-cd)pyrene	0.66	ND	
Dibenzo(a,h)anthracene	0.66	ND	
Benzo(ghi)perylene	0.66	ND	
Benzyl Alcohol	1.3	ND	

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: January 28, 1988
Date Reported: February 28, 1988

P.O. No.
Job No. AT077

For: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 380210
Sample No.: UF1 B-5 SS2 3.5'
Date Sampled: 1-27-88
Time Sampled: 1130
Date Extracted: 2-2-88
Date Analyzed: 2-23-88

Compound	Detection Limits mg/kg	Analytical Results mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	1.3	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	0.66	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a-,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	0.66	ND
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	3.3	ND
3-Nitroaniline	3.3	ND
4-Nitroaniline	3.3	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SW 8270
Matrix: Soil

page 4 of 5

Date Received: January 28, 1988
Date Reported: February 28, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Dolk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880210
Sample No.: QF1 B-5 SS2 3.5'
Date Sampled: 1-27-88
Time Sampled: 1130
Date Extracted: 2-2-88
Date Analyzed: 2-23-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
Alpha-BHC	--*	ND
Gamma-BHC	---	ND
Beta-BHC	0.4	ND
Heptachlor	0.2	ND
Delta-BHC	0.3	ND
Aldrin	0.2	ND
Heptachlor epoxide	0.2	ND
Endosulfan I	--*	ND
Dieldrin	0.3	ND
4,4'-DDE	0.6	ND
Endrin	--*	ND
Endosulfan II	--*	ND
4,4'-DDD	0.3	ND
4,4'-DDT	0.5	ND
Endosulfan Sulfate	0.6	ND
Endrin aldehyde	--*	ND
Endrin Ketone	--*	ND
Chlordane	4.0	ND
Methoxychlor	--*	ND
Toxaphene	4.0	ND
Aroclor-1016	4.0	ND
Aroclor-1221	4.0	ND
Aroclor-1232	4.0	ND
Aroclor-1242	4.0	ND
Aroclor-1248	4.0	ND
Aroclor-1254	4.0	ND
Aroclor-1260	4.0	ND

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SW 8270
Matrix: Soil

page 3 of 3

Date Received: January 28, 1988
Date Reported: February 28, 1988

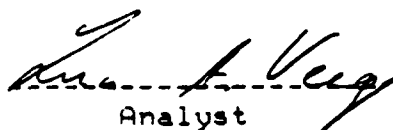
P.O. No.:
Job No.: AT077

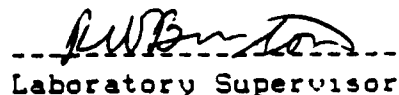
FOR: ES:Atlanta/Dolk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880210
Sample No.: UF1 B-5 SS2 3.5'
Date Sampled: 1-27-88
Time Sampled: 1130
Date Extracted: 2-2-88
Date Analyzed: 2-23-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
2-Chlorophenol	0.66	ND
2-Nitrophenol	0.66	ND
Phenol	0.66	ND
2,4-Dimethylphenol	0.66	ND
2,4-Dichlorophenol	0.66	ND
2,4,6-Trichlorophenol	0.66	ND
4-Chloro-3-methylphenol	1.3	ND
2,4-Dinitrophenol	3.3	ND
2,6-Dichlorophenol	--*	ND
2-Methyl-4,6-Dinitrophenol	3.3	ND
Pentachlorophenol	3.3	ND
4-Nitrophenol	3.3	ND
Benzoic Acid	3.3	ND
2-Methylphenol	0.66	ND
3- & 4-Methylphenol	0.66	ND
2,3,4,6-Tetrachlorophenol	--*	ND
2,4,5-Trichlorophenol	0.66	ND


Analyst


Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil

page 1 of 5

Date Received: January 28, 1988
Date Reported: February 28, 1988

P.O. No.
Job No.: AT077

FOR: ES: Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880211
Sample No.: UF1 B5 SS3 10'
Date Sampled: 1-27-88
Time Sampled: 1205
Date Extracted: 2-2-88
Date Analyzed: 2-23-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
1,3-Dichlorobenzene	0.66	ND
1,4-Dichlorobenzene	0.66	ND
Hexachloroethane	0.66	ND
Bis(2-chloroethyl)ether	0.66	ND
1,2-Dichlorobenzene	0.66	ND
N-Nitrosodimethylamine	2.5	ND
Bis(2-chloroisopropyl)ether	0.66	ND
N-Nitrosodi-n-propyl amine	0.66	ND
Hexachlorobutadiene	0.66	ND
1,2,4-Trichlorobenzene	0.66	ND
Nitrobenzene	0.66	ND
Isophorone	0.66	ND
Naphthalene	0.66	ND
Bis(2-chloroethoxy)methane	0.66	ND
2-Chloronaphthalene	0.66	ND
Hexachlorocyclopentadiene	0.66	ND
Acenaphthylene	0.66	ND
Acenaphthene	0.66	ND
Dimethyl phthalate	0.66	ND
2,6-Dinitrotoluene	0.66	ND
Fluorene	0.66	ND
2,4-Dinitrotoluene	0.66	ND
Diethyl phthalate	0.66	ND
N-Nitrosodiphenylamine	0.66	ND
Hexachlorobenzene	0.66	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 3

Date Received: January 28, 1988
Date Reported: February 28, 1988

P.O. No.:
Job No. AT077

FOR: ES:Atlanta/Oolk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 380211
Sample No.: UF1 B5 SS3 10'
Date Sampled: 1-27-88
Time Sampled: 1205
Date Extracted: 2-2-88
Date Analyzed: 2-23-88

Compound	Detection	ANALYTICAL RESULTS
	Limit mg/kg	mg/kg
Phenanthrene	0.66	ND
Anthracene	0.66	ND
Dibutyl phthalate	0.66	ND
Fluoranthene	0.66	ND
4-Chlorophenyl phenyl ether	0.66	ND
Pyrene	0.66	ND
Butyl Benzyl phthalate	0.66	ND
Bis(2-ethylhexyl) phthalate	0.66	ND
Chrysene	0.66	ND
4-Bromophenyl phenyl ether	0.66	ND
Benzo(a)anthracene	0.66	ND
Di-n-octylphthalate	0.66	ND
Benzo(b)fluoranthene	0.66	ND
Benzo(k)fluoranthene	0.66	ND
Benzidine	6.0	ND
3,3'-Dichlorobenzidine	1.3	ND
Benzo(a)pyrene	0.66	ND
Indeno(1,2,3-cd)pyrene	0.66	ND
Dibenzo(a,h)anthracene	0.66	ND
Benzo(ghi)perylene	0.66	ND
Benzyl Alcohol	1.3	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: January 28, 1988
Date Reported: February 28, 1988

P.O. No.:
Job No.: AT077

For: ES:Atlanta/Oolk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 380211
Sample No.: UF1 B5 SS3 10'
Date Sampled: 1-27-88
Time Sampled: 1205
Date Extracted: 2-2-88
Date Analyzed: 2-23-88

Compound	Detection Limits	Analytical Results
	mg/kg	mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	1.3	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	0.66	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a-,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	0.66	ND
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	3.3	ND
3-Nitroaniline	3.3	ND
4-Nitroaniline	3.3	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SW 8270
Matrix: Soil

page 4 of 5

Date Received: January 28, 1988
Date Reported: February 28, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880211
Sample No.: UF1 B5 SS3 10'
Date Sampled: 1-27-88
Time Sampled: 1205
Date Extracted: 2-2-88
Date Analyzed: 2-23-88

Compound	Detection Limits	ANALYTICAL RESULTS
	mg/kg	mg/kg
Alpha-BHC	--*	ND
Gamma-BHC	--*	ND
Beta-BHC	0.4	ND
Heptachlor	0.2	ND
Delta-BHC	0.3	ND
Aldrin	0.2	ND
Heptachlor epoxide	0.2	ND
Endosulfan I	--*	ND
Dieldrin	0.3	ND
4,4'-DDE	0.6	ND
Endrin	--*	ND
Endosulfan II	--*	ND
4,4'-DDD	0.3	ND
4,4'-DDT	0.5	ND
Endosulfan Sulfate	0.6	ND
Endrin aldehyde	--*	ND
Endrin Ketone	--*	ND
Chlordane	4.0	ND
Methoxychlor	--*	ND
Toxaphene	4.0	ND
Aroclor-1016	4.0	ND
Aroclor-1221	4.0	ND
Aroclor-1232	4.0	ND
Aroclor-1242	4.0	ND
Aroclor-1248	4.0	ND
Aroclor-1254	4.0	ND
Aroclor-1260	4.0	ND

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SW 8270
Matrix: Soil

page 5 of 5

Date Received: January 28, 1988
Date Reported: February 28, 1988

P.O. No.:
Job No.: AT077

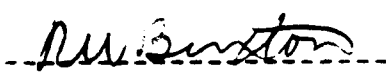
FOR: ES Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880211
Sample No.: UF1 B5 SS3 10'
Date Sampled: 1-27-88
Time Sampled: 1205
Date Extracted: 2-2-88
Date Analyzed: 2-23-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
2-Chlorophenol	0.66	ND
2-Nitrophenol	0.66	ND
Phenol	0.66	ND
2,4-Dimethylphenol	0.66	ND
2,4-Dichlorophenol	0.66	ND
2,4,6-Trichlorophenol	0.66	ND
4-Chloro-3-methylphenol	1.3	ND
2,4-Dinitrophenol	3.3	ND
2,6-Dichlorophenol	--*	ND
2-Methyl-4,6-Dinitrophenol	3.3	ND
Pentachlorophenol	3.3	ND
4-Nitrophenol	3.3	ND
Benzoic Acid	3.3	ND
2-Methylphenol	0.66	ND
3- & 4-Methylphenol	0.66	ND
2,3,4,6-Tetrachlorophenol	--*	ND
2,4,5-Trichlorophenol	0.66	ND


Analyst


Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 3270
Matrix: Soil

page 1 of 5

Date Received: January 28, 1988
Date Reported: February 28, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880212
Sample No.: UF1 B6 SS1 01
Date Sampled: 1-27-88
Time Sampled: 1240
Date Extracted: 2-2-88
Date Analyzed: 2-23-88

Compound	Detection Limits	ANALYTICAL RESULTS
	mg/kg	mg/kg
1,3-Dichlorobenzene	0.66	ND
1,4-Dichlorobenzene	0.66	ND
Hexachloroethane	0.66	ND
Bis(2-chloroethyl)ether	0.66	ND
1,2-Dichlorobenzene	0.66	ND
N-Nitrosodimethylamine	2.5	ND
Bis(2-chloroisopropyl)ether	0.66	ND
N-Nitrosodi-n-propyl amine	0.66	ND
Hexachlorobutadiene	0.66	ND
1,2,4-Trichlorobenzene	0.66	ND
Nitrobenzene	0.66	ND
Isophorone	0.66	ND
Naphthalene	0.66	ND
Bis(2-chloroethoxy)methane	0.66	ND
2-Chloronaphthalene	0.66	ND
Hexachlorocyclopentadiene	0.66	ND
Acenaphthylene	0.66	ND
Acenaphthene	0.66	ND
Dimethyl phthalate	0.66	ND
2,6-Dinitrotoluene	0.66	ND
Fluorene	0.66	ND
2,4-Dinitrotoluene	0.66	ND
Diethyl phthalate	0.66	ND
N-Nitrosodiphenylamine	0.66	ND
Hexachlorobenzene	0.66	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 3

Date Received: January 28, 1988
Date Reported: February 28, 1988

P.O. No.
Job No. AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 380212
Sample No.: UF1 B6 SS1 0'
Date Sampled: 1-27-88
Time Sampled: 1240
Date Extracted: 2-2-88
Date Analyzed: 2-23-88

Compound	Detection Limit mg/kg	ANALYTICAL RESULTS
		mg/kg
Phenanthrene	0.66	ND
Anthracene	0.66	ND
Dibutyl phthalate	0.66	ND
Fluoranthene	0.66	ND
4-Chlorophenyl phenyl ether	0.66	ND
Pyrene	0.66	ND
Butyl Benzyl phthalate	0.66	ND
Bis(2-ethylhexyl) phthalate	0.66	ND
Chrysene	0.66	ND
4-Bromophenyl phenyl ether	0.66	ND
Benzo(a)anthracene	0.66	ND
Di-n-octylphthalate	0.66	ND
Benzo(b)fluoranthene	0.66	ND
Benzo(k)fluoranthene	0.66	ND
Benzidine	6.0	ND
3,3'-Dichlorobenzidine	1.3	ND
Benzo(a)pyrene	0.66	ND
Indeno(1,2,3-cd)pyrene	0.66	ND
Dibenzo(a,h)anthracene	0.66	ND
Benzo(ghi)perylene	0.66	ND
Benzyl Alcohol	1.3	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: January 28, 1988
Date Reported: February 28, 1988

P.O. No.:
Job No.: AT077

For: ES:Atlanta/Folk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880212
Sample No.: UF1 B6 SS1 0'
Date Sampled: 1-27-88
Time Sampled: 1240
Date Extracted: 2-2-88
Date Analyzed: 2-23-88

Compound	Detection Limits	Analytical Results
	mg/kg	mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	1.3	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	0.66	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a-,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	0.66	ND
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	3.3	ND
3-Nitroaniline	3.3	ND
4-Nitroaniline	3.3	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SW 8270
Matrix: Soil

page 4 of 5

Date Received: January 28, 1988
Date Reported: February 28, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Oolk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880212
Sample No.: UF1 B6 SS1 0'
Date Sampled: 1-27-88
Time Sampled: 1240
Date Extracted: 2-2-88
Date Analyzed: 2-23-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
Alpha-BHC	--*	ND
Gamma-BHC	—*	ND
Beta-BHC	0.4	ND
Heptachlor	0.2	ND
Delta-BHC	0.3	ND
Aldrin	0.2	ND
Heptachlor epoxide	0.2	ND
Endosulfan I	--*	ND
Dieldrin	0.3	ND
4,4'-DDE	0.6	ND
Endrin	--*	ND
Endosulfan II	--*	ND
4,4'-DDD	0.3	ND
4,4'-DDT	0.5	ND
Endosulfan Sulfate	0.6	ND
Endrin aldehyde	--*	ND
Endrin Ketone	--*	ND
Chlordane	4.0	ND
Methoxychlor	--*	ND
Toxaphene	4.0	ND
Aroclor-1016	4.0	ND
Aroclor-1221	4.0	ND
Aroclor-1232	4.0	ND
Aroclor-1242	4.0	ND
Aroclor-1248	4.0	ND
Aroclor-1254	4.0	ND
Aroclor-1260	4.0	ND

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SW 8270
Matrix: Soil

page 5 of 6

Date Received: January 28, 1988
Date Reported: February 28, 1988

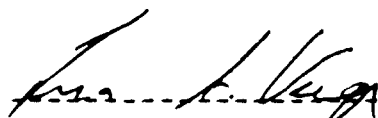
P.O. No. 100-1000000000
Job No. AT077

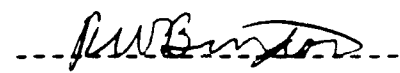
FOR: ES:Atlanta/Folk Field ANGB
Address 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880212
Sample No. 0F1 B6 SS1 01
Date Sampled: 1-27-88
Time Sampled: 1240
Date Extracted: 2-2-88
Date Analyzed: 2-23-88

Compound	Detection Limits	ANALYTICAL RESULTS
	mg/kg	mg/kg
2-Chlorophenol	0.66	ND
2-Nitrophenol	0.66	ND
Phenol	0.66	ND
2,4-Dimethylphenol	0.66	ND
2,4-Dichlorophenol	0.66	ND
2,4,6-Trichlorophenol	0.66	ND
4-Chloro-3-methylphenol	1.3	ND
2,4-Dinitrophenol	3.3	ND
2,6-Dichlorophenol	--*	ND
2-Methyl-4,6-Dinitrophenol	3.3	ND
Pentachlorophenol	3.3	ND
4-Nitrophenol	3.3	ND
Benzoic Acid	3.3	ND
2-Methylphenol	0.66	ND
3- & 4-Methylphenol	0.66	ND
2,3,4,6-Tetrachlorophenol	--*	ND
2,4,5-Trichlorophenol	0.66	ND


Analyst


Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil

page 1 of 3

Date Received: January 28, 1988
Date Reported: February 28, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880205
Sample No.: UF1 B6 SS2 3.5'
Date Sampled: 1-27-88
Time Sampled: 1310
Date Extracted: 2-2-88
Date Analyzed: 2-23-88

Compound	Detection Limits	ANALYTICAL RESULTS
	mg/kg	mg/kg
1,3-Dichlorobenzene	6.6	ND
1,4-Dichlorobenzene	6.6	ND
Hexachloroethane	6.6	ND
Bis(2-chloroethyl)ether	6.6	ND
1,2-Dichlorobenzene	6.6	ND
N-Nitrosodimethylamine	25	ND
Bis(2-chloroisopropyl)ether	6.6	ND
N-Nitrosodi-n-propyl amine	6.6	ND
Hexachlorobutadiene	6.6	ND
1,2,4-Trichlorobenzene	6.6	ND
Nitrobenzene	6.6	ND
Isophorone	6.6	ND
Naphthalene	6.6	ND
Bis(2-chloroethoxy)methane	6.6	ND
2-Chloronaphthalene	6.6	ND
Hexachlorocyclopentadiene	6.6	ND
Acenaphthylene	6.6	ND
Acenaphthene	6.6	ND
Dimethyl phthalate	6.6	ND
2,6-Dinitrotoluene	6.6	ND
Fluorene	6.6	ND
2,4-Dinitrotoluene	6.6	ND
Diethyl phthalate	6.6	ND
N-Nitrosodiphenylamine	6.6	ND
Hexachlorobenzene	6.6	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 3

Date Received: January 28, 1988
Date Reported: February 28, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880205
Sample No.: UF1 B6 SS2 3.5'
Date Sampled: 1-27-88
Time Sampled: 1310
Date Extracted: 2-2-88
Date Analyzed: 2-23-88

Compound	Detection	ANALYTICAL RESULTS	
	Limit mg/kg	mg/kg	
Phenanthrene	6.6	ND	
Anthracene	6.6	ND	
Dibutyl phthalate	6.6	ND	
Fluoranthene	6.6	ND	
4-Chlorophenyl phenyl ether	6.6	ND	
Pyrene	6.6	ND	
Butyl Benzyl phthalate	6.6	ND	
Bis(2-ethylhexyl) phthalate	6.6	ND	
Chrysene	6.6	ND	
4-Bromophenyl phenyl ether	6.6	ND	
Benzo(a)anthracene	6.6	ND	
Di-n-octylphthalate	6.6	ND	
Benzo(b)fluoranthene	6.6	ND	
Benzo(k)fluoranthene	6.6	ND	
Benzidine	60	ND	
3,3'-Dichlorobenzidine	13	ND	
Benzo(a)pyrene	6.6	ND	
Indeno(1,2,3-cd)pyrene	6.6	ND	
Dibenzo(a,h)anthracene	6.6	ND	
Benzo(ghi)perylene	6.6	ND	
Benzyl Alcohol	13	ND	

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: January 28, 1988
Date Reported: February 28, 1988

P.O. No.:
Job No.: AT077

For: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 380205
Sample No.: UF1 B6 SS2 3.5'
Date Sampled: 1-27-88
Time Sampled: 1310
Date Extracted: 2-2-88
Date Analyzed: 2-23-88

Compound	Detection Limits	Analytical Results
	mg/kg	mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	13	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	6.6	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a-,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	6.6	ND
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	33	ND
3-Nitroaniline	33	ND
4-Nitroaniline	33	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SW 8270
Matrix: Soil

page 4 of 5

Date Received: January 28, 1988
Date Reported: February 28, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 980205
Sample No.: UF1 B6 3S2 3.5'
Date Sampled: 1-27-88
Time Sampled: 1310
Date Extracted: 2-2-88
Date Analyzed: 2-23-88

Compound	Detection Limits	ANALYTICAL RESULTS
	mg/kg	mg/kg
Alpha-BHC	--*	ND
Gamma-BHC	—*	ND
Beta-BHC	4	ND
Heptachlor	2	ND
Delta-BHC	3	ND
Aldrin	2	ND
Heptachlor epoxide	2	ND
Endosulfan I	--*	ND
Dieldrin	3	ND
4,4'-DDE	6	ND
Endrin	--*	ND
Endosulfan II	--*	ND
4,4'-DDD	3	ND
4,4'-DDT	5	ND
Endosulfan Sulfate	6	ND
Endrin aldehyde	--*	ND
Endrin Ketone	--*	ND
Chlordane	40	ND
Methoxychlor	--*	ND
Toxaphene	40	ND
Aroclor-1016	40	ND
Aroclor-1221	40	ND
Aroclor-1232	40	ND
Aroclor-1242	40	ND
Aroclor-1248	40	ND
Aroclor-1254	40	ND
Aroclor-1260	40	ND

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SW 8270
Matrix: Soil

page 5 of 5

Date Received: January 28, 1988
Date Reported: February 28, 1988

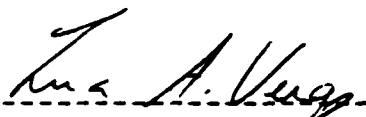
P.O. No.:
Job No.: AT077


FOR: ES:Atlanta/Dolk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880205
Sample No.: UF1 B6 SS2 3.5'
Date Sampled: 1-27-88
Time Sampled: 1310
Date Extracted: 2-2-88
Date Analyzed: 2-23-88

Compound	Detection Limits	ANALYTICAL RESULTS
	mg/kg	mg/kg
2-Chlorophenol	6.6	ND
2-Nitrophenol	6.6	ND
Phenol	6.6	ND
2,4-Dimethylphenol	6.6	ND
2,4-Dichlorophenol	6.6	ND
2,4,6-Trichlorophenol	6.6	ND
4-Chloro-3-methylphenol	13	ND
2,4-Dinitrophenol	33	ND
2,6-Dichlorophenol	--*	ND
2-Methyl-4,6-Dinitrophenol	33	ND
Pentachlorophenol	33	ND
4-Nitrophenol	33	ND
Benzoic Acid	33	ND
2-Methylphenol	6.6	ND
3- & 4-Methylphenol	6.6	ND
2,3,4,6-Tetrachlorophenol	--*	ND
2,4,5-Trichlorophenol	6.6	ND


Analyst


Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil

page 1 of 5

Date Received: January 28, 1988
Date Reported: February 28, 1988

P.O. No.:
Job No.: AT077

FOR: ES Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880206
Sample No.: OF1 B6 SS3 3.5'
Date Sampled: 1-27-88
Time Sampled: 1335
Date Extracted: 2-2-88
Date Analyzed: 2-22-88

Compound	Detection	ANALYTICAL RESULTS	
	Limits mg/kg	mg/kg	
1,3-Dichlorobenzene	0.66	ND	
1,4-Dichlorobenzene	0.66	ND	
Hexachloroethane	0.66	ND	
Bis(2-chloroethyl)ether	0.66	ND	
1,2-Dichlorobenzene	0.66	ND	
N-Nitrosodimethylamine	2.5	ND	
Bis(2-chloroisopropyl)ether	0.66	ND	
N-Nitrosodi-n-propyl amine	0.66	ND	
Hexachlorobutadiene	0.66	ND	
1,2,4-Trichlorobenzene	0.66	ND	
Nitrobenzene	0.66	ND	
Isophorone	0.66	ND	
Naphthalene	0.66	2.7	
Bis(2-chloroethoxy)methane	0.66	ND	
2-Chloronaphthalene	0.66	ND	
Hexachlorocyclopentadiene	0.66	ND	
Acenaphthylene	0.66	ND	
Acenaphthene	0.66	ND	
Dimethyl phthalate	0.66	ND	
2,6-Dinitrotoluene	0.66	ND	
Fluorene	0.66	ND	
2,4-Dinitrotoluene	0.66	ND	
Diethyl phthalate	0.66	ND	
N-Nitrosodiphenylamine	0.66	ND	
Hexachlorobenzene	0.66	ND	

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 5

Date Received: January 28, 1988
Date Reported: February 28, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880206
Sample No.: UF1 B6 SS3 8.5'
Date Sampled: 1-27-88
Time Sampled: 1335
Date Extracted: 2-2-88
Date Analyzed: 2-22-88

Compound	Detection	ANALYTICAL RESULTS	
	Limit mg/kg		mg/kg
Phenanthrene	0.66		ND
Anthracene	0.66		ND
Dibutyl phthalate	0.66		ND
Fluoranthene	0.66		ND
4-Chlorophenyl phenyl ether	0.66		ND
Pyrene	0.66		ND
Butyl Benzyl phthalate	0.66		ND
Bis(2-ethylhexyl) phthalate	0.66		ND
Chrysene	0.66		ND
4-Bromophenyl phenyl ether	0.66		ND
Benzo(a)anthracene	0.66		ND
Di-n-octylphthalate	0.66		ND
Benzo(b)fluoranthene	0.66		ND
Benzo(k)fluoranthene	0.66		ND
Benzidine	6.0		ND
3,3'-Dichlorobenzidine	1.3		ND
Benzo(a)pyrene	0.66		ND
Indeno(1,2,3-cd)pyrene	0.66		ND
Dibenzo(a,h)anthracene	0.66		ND
Benzo(ghi)perylene	0.66		ND
Benzyl Alcohol	1.3		ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: January 28, 1988
Date Reported: February 28, 1988

P.O. No.:
Job No.: AT077

For: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880206
Sample No.: UF1 B6 003 3.5'
Date Sampled: 1-27-88
Time Sampled: 1335
Date Extracted: 2-2-88
Date Analyzed: 2-22-88

Compound	Detection Limits	Analytical Results
	mg/kg	mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	1.3	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	0.66	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	0.66	2.7
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	3.3	ND
3-Nitroaniline	3.3	ND
4-Nitroaniline	3.3	ND
4-Nitroso-di-n-butylamine	--*	ND
4-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SW 8270
Matrix: Soil

page 4 of 5

Date Received: January 28, 1988
Date Reported: February 28, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880206
Sample No.: UF1 B6 SS3 3.5'
Date Sampled: 1-27-88
Time Sampled: 1335
Date Extracted: 2-2-88
Date Analyzed: 2-22-88

Compound	Detection	ANALYTICAL RESULTS	
	Limits mg/kg	mg/kg	
Alpha-BHC	--*	ND	
Gamma-BHC	---	ND	
Beta-BHC	0.4	ND	
Heptachlor	0.2	ND	
Delta-BHC	0.3	ND	
Aldrin	0.2	ND	
Heptachlor epoxide	0.2	ND	
Endosulfan I	--*	ND	
Dieldrin	0.3	ND	
4,4'-DDE	0.6	ND	
Endrin	--*	ND	
Endosulfan II	--*	ND	
4,4'-DDD	0.3	ND	
4,4'-DDT	0.5	ND	
Endosulfan Sulfate	0.6	ND	
Endrin aldehyde	--*	ND	
Endrin Ketone	--*	ND	
Chlordane	4.0	ND	
Methoxychlor	--*	ND	
Toxaphene	4.0	ND	
Aroclor-1016	4.0	ND	
Aroclor-1221	4.0	ND	
Aroclor-1232	4.0	ND	
Aroclor-1242	4.0	ND	
Aroclor-1248	4.0	ND	
Aroclor-1254	4.0	ND	
Aroclor-1260	4.0	ND	

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SW 8270
Matrix: Soil

page 3 of 5

Date Received: January 28, 1988
Date Reported: February 28, 1988

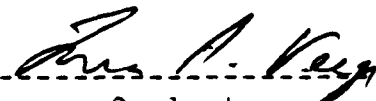
P.O. No.:
Job No.: AT077

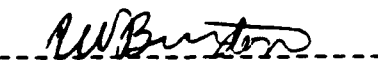
FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880206
Sample No.: UF1 B6 SS3 3.5'
Date Sampled: 1-27-88
Time Sampled: 1335
Date Extracted: 2-2-88
Date Analyzed: 2-22-88

Compound	Detection Limits	ANALYTICAL RESULTS	
	mg/kg	mg/kg	
2-Chlorophenol	0.66	ND	
2-Nitrophenol	0.66	ND	
Phenol	0.66	ND	
2,4-Dimethylphenol	0.66	ND	
2,4-Dichlorophenol	0.66	ND	
2,4,6-Trichlorophenol	0.66	ND	
4-Chloro-3-methylphenol	1.3	ND	
2,4-Dinitrophenol	3.3	ND	
2,6-Dichlorophenol	--*	ND	
2-Methyl-4,6-Dinitrophenol	3.3	ND	
Pentachlorophenol	3.3	ND	
4-Nitrophenol	3.3	ND	
Benzoic Acid	3.3	ND	
2-Methylphenol	0.66	ND	
3- & 4-Methylphenol	0.66	ND	
2,3,4,6-Tetrachlorophenol	--*	ND	
2,4,5-Trichlorophenol	0.66	ND	


Analyst


Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil

page 1 of 5

Date Received: January 28, 1988
Date Reported: February 28, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880207
Sample No.: UF1 B7 SS1 0'
Date Sampled: 1-27-88
Time Sampled: 1500
Date Extracted: 2-2-88
Date Analyzed: 2-22-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
1,3-Dichlorobenzene	0.66	ND
1,4-Dichlorobenzene	0.66	ND
Hexachloroethane	0.66	ND
Bis(2-chloroethyl)ether	0.66	ND
1,2-Dichlorobenzene	0.66	ND
N-Nitrosodimethylamine	2.5	ND
Bis(2-chloroisopropyl)ether	0.66	ND
N-Nitrosodi-n-propyl amine	0.66	ND
Hexachlorobutadiene	0.66	ND
1,2,4-Trichlorobenzene	0.66	ND
Nitrobenzene	0.66	ND
Isophorone	0.66	ND
Naphthalene	0.66	ND
Bis(2-chloroethoxy)methane	0.66	ND
2-Chloronaphthalene	0.66	ND
Hexachlorocyclopentadiene	0.66	ND
Acenaphthylene	0.66	ND
Acenaphthene	0.66	ND
Dimethyl phthalate	0.66	ND
2,6-Dinitrotoluene	0.66	ND
Fluorene	0.66	ND
2,4-Dinitrotoluene	0.66	ND
Diethyl phthalate	0.66	ND
N-Nitrosodiphenylamine	0.66	ND
Hexachlorobenzene	0.66	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 5

Date Received: January 28, 1988
Date Reported: February 28, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880207
Sample No.: UF1 B7 SS1 0'
Date Sampled: 1-27-88
Time Sampled: 1500
Date Extracted: 2-2-88
Date Analyzed: 2-22-88

Compound	Detection	ANALYTICAL RESULTS	
	Limit mg/kg	mg/kg	
Phenanthrene	0.66	ND	
Anthracene	0.66	ND	
Dibutyl phthalate	0.66	ND	
Fluoranthene	0.66	ND	
4-Chlorophenyl phenyl ether	0.66	ND	
Pyrene	0.66	ND	
Butyl Benzyl phthalate	0.66	ND	
Bis(2-ethylhexyl) phthalate	0.66	ND	
Chrysene	0.66	ND	
4-Bromophenyl phenyl ether	0.66	ND	
Benzo(a)anthracene	0.66	ND	
Di-n-octylphthalate	0.66	ND	
Benzo(b)fluoranthene	0.66	ND	
Benzo(k)fluoranthene	0.66	ND	
Benzidine	6.0	ND	
3,3'-Dichlorobenzidine	1.3	ND	
Benzo(a)pyrene	0.66	ND	
Indeno(1,2,3-cd)pyrene	0.66	ND	
Dibenzo(a,h)anthracene	0.66	ND	
Benzo(ghi)perylene	0.66	ND	
Benzyl Alcohol	1.3	ND	

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: January 28, 1988
Date Reported: February 28, 1988

P.O. No.:
Job No.: AT077

For: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880207
Sample No.: UF1 B7 SS1 0'
Date Sampled: 1-27-88
Time Sampled: 1500
Date Extracted: 2-2-88
Date Analyzed: 2-22-88

Compound	Detection Limits	Analytical Results
	mg/kg	mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	1.3	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	0.66	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	0.66	ND
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	3.3	ND
3-Nitroaniline	3.3	ND
4-Nitroaniline	3.3	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SW 8270
Matrix: Soil

page 4 of 5

Date Received: January 28, 1988
Date Reported: February 28, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 980207
Sample No.: UF1 B7 SS1 0'
Date Sampled: 1-27-88
Time Sampled: 1500
Date Extracted: 2-2-88
Date Analyzed: 2-22-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
Alpha-BHC	--*	ND
Gamma-BHC	—*	ND
Beta-BHC	0.4	ND
Heptachlor	0.2	ND
Delta-BHC	0.3	ND
Aldrin	0.2	ND
Heptachlor epoxide	0.2	ND
Endosulfan I	--*	ND
Dieldrin	0.3	ND
4,4'-DDE	0.6	ND
Endrin	--*	ND
Endosulfan II	--*	ND
4,4'-DDD	0.3	ND
4,4'-DDT	0.5	ND
Endosulfan Sulfate	0.6	ND
Endrin aldehyde	--*	ND
Endrin Ketone	--*	ND
Chlordane	4.0	ND
Methoxychlor	--*	ND
Toxaphene	4.0	ND
Aroclor-1016	4.0	ND
Aroclor-1221	4.0	ND
Aroclor-1232	4.0	ND
Aroclor-1242	4.0	ND
Aroclor-1248	4.0	ND
Aroclor-1254	4.0	ND
Aroclor-1260	4.0	ND

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SW 8270
Matrix: Soil

page 5 of 5

Date Received: January 28, 1988
Date Reported: February 28, 1988

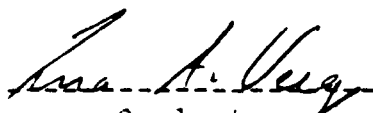
P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880207
Sample No.: UF1 B7 SS1 0'
Date Sampled: 1-27-88
Time Sampled: 1500
Date Extracted: 2-2-88
Date Analyzed: 2-22-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
2-Chlorophenol	0.66	ND
2-Nitrophenol	0.66	ND
Phenol	0.66	ND
2,4-Dimethylphenol	0.66	ND
2,4-Dichlorophenol	0.66	ND
2,4,6-Trichlorophenol	0.66	ND
4-Chloro-3-methylphenol	1.3	ND
2,4-Dinitrophenol	3.3	ND
2,6-Dichlorophenol	--*	ND
2-Methyl-4,6-Dinitrophenol	3.3	ND
Pentachlorophenol	3.3	ND
4-Nitrophenol	3.3	ND
Benzoic Acid	3.3	ND
2-Methylphenol	0.66	ND
3- & 4-Methylphenol	0.66	ND
2,3,4,6-Tetrachlorophenol	--*	ND
2,4,5-Trichlorophenol	0.66	ND


Analyst


Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil

page 1 of 5

Date Received: January 28, 1988
Date Reported: February 28, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880208
Sample No.: UF1 B7 SS2 3.5'
Date Sampled: 1-27-88
Time Sampled: 1530
Date Extracted: 2-2-88
Date Analyzed: 2-22-88

Compound	Detection	ANALYTICAL RESULTS	
	Limits		
	mg/kg	mg/kg	
1,3-Dichlorobenzene	0.66	ND	
1,4-Dichlorobenzene	0.66	ND	
Hexachloroethane	0.66	ND	
Bis(2-chloroethyl)ether	0.66	ND	
1,2-Dichlorobenzene	0.66	ND	
N-Nitrosodimethylamine	2.5	ND	
Bis(2-chloroisopropyl)ether	0.66	ND	
N-Nitrosodi-n-propyl amine	0.66	ND	
Hexachlorobutadiene	0.66	ND	
1,2,4-Trichlorobenzene	0.66	ND	
Nitrobenzene	0.66	ND	
Isophorone	0.66	ND	
Naphthalene	0.66	ND	
Bis(2-chloroethoxy)methane	0.66	ND	
2-Chloronaphthalene	0.66	ND	
Hexachlorocyclopentadiene	0.66	ND	
Acenaphthylene	0.66	ND	
Acenaphthene	0.66	ND	
Dimethyl phthalate	0.66	ND	
2,6-Dinitrotoluene	0.66	ND	
Fluorene	0.66	ND	
2,4-Dinitrotoluene	0.66	ND	
Diethyl phthalate	0.66	ND	
N-Nitrosodiphenylamine	0.66	ND	
Hexachlorobenzene	0.66	ND	

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: January 28, 1988
Date Reported: February 28, 1988

P.O. No.:
Job No.: AT077

For: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880208
Sample No.: VF1 B7 SS2 3.5'
Date Sampled: 1-27-88
Time Sampled: 1530
Date Extracted: 2-2-88
Date Analyzed: 2-22-88

Compound	Detection Limits	Analytical Results
	mg/kg	mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	1.3	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	0.66	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a-,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	0.66	ND
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	3.3	ND
3-Nitroaniline	3.3	ND
4-Nitroaniline	3.3	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 5

Date Received: January 28, 1988
Date Reported: February 26, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880208
Sample No.: UF1 B7 SS2 3.5'
Date Sampled: 1-27-88
Time Sampled: 1530
Date Extracted: 2-2-88
Date Analyzed: 2-22-88

Compound	Detection Limit mg/kg	ANALYTICAL RESULTS	
		mg/kg	
Phenanthrene	0.66	ND	
Anthracene	0.66	ND	
Dibutyl phthalate	0.66	ND	
Fluoranthene	0.66	ND	
4-Chlorophenyl phenyl ether	0.66	ND	
Pyrene	0.66	ND	
Butyl Benzyl phthalate	0.66	ND	
Bis(2-ethylhexyl) phthalate	0.66	ND	
Chrysene	0.66	ND	
4-Bromophenyl phenyl ether	0.66	ND	
Benzo(a)anthracene	0.66	ND	
Di-n-octylphthalate	0.66	ND	
Benzo(b)fluoranthene	0.66	ND	
Benzo(k)fluoranthene	0.66	ND	
Benzidine	6.0	ND	
3,3'-Dichlorobenzidine	1.3	ND	
Benzo(a)pyrene	0.66	ND	
Indeno(1,2,3-cd)pyrene	0.66	ND	
Dibenzo(a,h)anthracene	0.66	ND	
Benzo(ghi)perylene	0.66	ND	
Benzyl Alcohol	1.3	ND	

Priority Pollutant Analysis
Acid Extractables -- SW 8270
Matrix: Soil

page 5 of 5

Date Received: January 28, 1988
Date Reported: February 28, 1988

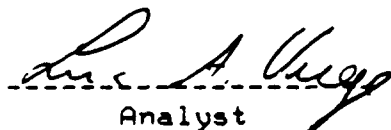
P.O. No.:
Job No.: AT077

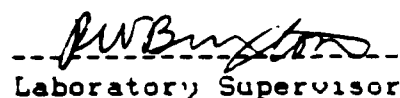
FOR: ES:Atlanta/Folk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880208
Sample No.: UF1 B7 SS2 3.5'
Date Sampled: 1-27-88
Time Sampled: 1530
Date Extracted: 2-2-88
Date Analyzed: 2-22-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
2-Chlorophenol	0.66	ND
2-Nitrophenol	0.66	ND
Phenol	0.66	ND
2,4-Dimethylphenol	0.66	ND
2,4-Dichlorophenol	0.66	ND
2,4,6-Trichlorophenol	0.66	ND
4-Chloro-3-methylphenol	1.3	ND
2,4-Dinitrophenol	3.3	ND
2,6-Dichlorophenol	--*	ND
2-Methyl-4,6-Dinitrophenol	3.3	ND
Pentachlorophenol	3.3	ND
4-Nitrophenol	3.3	ND
Benzoic Acid	3.3	ND
2-Methylphenol	0.66	ND
3- & 4-Methylphenol	0.66	ND
2,3,4,6-Tetrachlorophenol	--*	ND
2,4,5-Trichlorophenol	0.66	ND


Analyst


Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

Priority Pollutant Analysis
Pesticides and PCBs - SW 8270
Matrix: Soil

page 4 of 5

Date Received: January 28, 1988
Date Reported: February 28, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880208
Sample No.: UF1 B7 SS2 3.5'
Date Sampled: 1-27-88
Time Sampled: 1530
Date Extracted: 2-2-88
Date Analyzed: 2-22-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
Alpha-BHC	--*	ND
Gamma-BHC	—*	ND
Beta-BHC	0.4	ND
Heptachlor	0.2	ND
Delta-BHC	0.3	ND
Aldrin	0.2	ND
Heptachlor epoxide	0.2	ND
Endosulfan I	--*	ND
Dieldrin	0.3	ND
4,4'-DDE	0.6	ND
Endrin	--*	ND
Endosulfan II	--*	ND
4,4'-DDD	0.3	ND
4,4'-DDT	0.5	ND
Endosulfan Sulfate	0.6	ND
Endrin aldehyde	--*	ND
Endrin Ketone	--*	ND
Chlordane	4.0	ND
Methoxychlor	--*	ND
Toxaphene	4.0	ND
Aroclor-1016	4.0	ND
Aroclor-1221	4.0	ND
Aroclor-1232	4.0	ND
Aroclor-1242	4.0	ND
Aroclor-1248	4.0	ND
Aroclor-1254	4.0	ND
Aroclor-1260	4.0	ND

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis

page 2 of 5

Base Neutrals - SW 8270

Matrix: Soil

(continued)

Date Received: January 28, 1988
Date Reported: February 28, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880204
Sample No.: UF1 B7 SS3 3.5'
Date Sampled: 1-27-88
Time Sampled: 1600
Date Extracted: 2-2-88
Date Analyzed: 2-19-88

Compound	Detection	ANALYTICAL RESULTS
	Limit mg/kg	mg/kg
Phenanthrene	0.66	ND
Anthracene	0.66	ND
Dibutyl phthalate	0.66	ND
Fluoranthene	0.66	ND
4-Chlorophenyl phenyl ether	0.66	ND
Pyrene	0.66	ND
Butyl Benzyl phthalate	0.66	ND
Bis(2-ethylhexyl) phthalate	0.66	ND
Chrysene	0.66	ND
4-Bromophenyl phenyl ether	0.66	ND
Benzo(a)anthracene	0.66	ND
Di-n-octylphthalate	0.66	ND
Benzo(b)fluoranthene	0.66	ND
Benzo(k)fluoranthene	0.66	ND
Benzidine	6.0	ND
3,3'-Dichlorobenzidine	1.3	ND
Benzo(a)pyrene	0.66	ND
Indeno(1,2,3-cd)pyrene	0.66	ND
Dibenzo(a,h)anthracene	0.66	ND
Benzo(ghi)perylene	0.66	ND
Benzyl Alcohol	1.3	ND

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil

page 1 of 5

Date Received: January 28, 1988
Date Reported: February 28, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880204
Sample No.: UF1 B7 SS3 0.5'
Date Sampled: 1-27-88
Time Sampled: 1600
Date Extracted: 2-2-88
Date Analyzed: 2-19-88

Compound	Detection Limits	ANALYTICAL RESULTS	
	mg/kg	mg/kg	
1,3-Dichlorobenzene	0.66	ND	
1,4-Dichlorobenzene	0.66	ND	
Hexachloroethane	0.66	ND	
Bis(2-chloroethyl)ether	0.66	ND	
1,2-Dichlorobenzene	0.66	ND	
N-Nitrosodimethylamine	2.5	ND	
Bis(2-chloroisopropyl)ether	0.66	ND	
N-Nitrosodi-n-propyl amine	0.66	ND	
Hexachlorobutadiene	0.66	ND	
1,2,4-Trichlorobenzene	0.66	ND	
Nitrobenzene	0.66	ND	
Isophorone	0.66	ND	
Naphthalene	0.66	ND	
Bis(2-chloroethoxy)methane	0.66	ND	
2-Chloronaphthalene	0.66	ND	
Hexachlorocyclopentadiene	0.66	ND	
Acenaphthylene	0.66	ND	
Acenaphthene	0.66	ND	
Dimethyl phthalate	0.66	ND	
2,6-Dinitrotoluene	0.66	ND	
Fluorene	0.66	ND	
2,4-Dinitrotoluene	0.66	ND	
Diethyl phthalate	0.66	ND	
N-Nitrosodiphenylamine	0.66	ND	
Hexachlorobenzene	0.66	ND	

Priority Pollutant Analysis
Base Neutrals - SW 3270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: January 28, 1988
Date Reported: February 28, 1988

P.O. No.:
Job No.: AT077

For: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880204
Sample No.: UF1 B7 SS3 3.5'
Date Sampled: 1-27-88
Time Sampled: 1600
Date Extracted: 2-2-88
Date Analyzed: 2-19-88

Compound	Detection Limits	Analytical Results
	mg/kg	mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	1.3	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	0.66	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a-,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	0.66	ND
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	3.3	ND
3-Nitroaniline	3.3	ND
4-Nitroaniline	3.3	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SW 8270
Matrix: Soil

page 4 of 5

Date Received: January 28, 1988
Date Reported: February 28, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Dolk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880204
Sample No.: UF1 B7 SS3 8.5'
Date Sampled: 1-27-88
Time Sampled: 1600
Date Extracted: 2-2-88
Date Analyzed: 2-19-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
Alpha-BHC	--*	ND
Gamma-BHC	---	ND
Beta-BHC	0.4	ND
Heptachlor	0.2	ND
Delta-BHC	0.3	ND
Aldrin	0.2	ND
Heptachlor epoxide	0.2	ND
Endosulfan I	--*	ND
Dieldrin	0.3	ND
4,4'-DDE	0.6	ND
Endrin	--*	ND
Endosulfan II	--*	ND
4,4'-DDD	0.3	ND
4,4'-DDT	0.5	ND
Endosulfan Sulfate	0.6	ND
Endrin aldehyde	--*	ND
Endrin Ketone	--*	ND
Chlordane	4.0	ND
Methoxychlor	--*	ND
Toxaphene	4.0	ND
Aroclor-1016	4.0	ND
Aroclor-1221	4.0	ND
Aroclor-1232	4.0	ND
Aroclor-1242	4.0	ND
Aroclor-1248	4.0	ND
Aroclor-1254	4.0	ND
Aroclor-1260	4.0	ND

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SW 8270
Matrix: Soil

page 5 of 5

Date Received: January 28, 1988
Date Reported: February 28, 1988

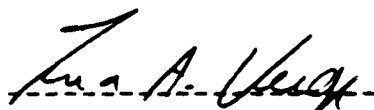
P.O. No.:
Job No.: AT077


FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880204
Sample No.: UF1 B7 SS3 3.5'
Date Sampled: 1-27-88
Time Sampled: 1600
Date Extracted: 2-2-88
Date Analyzed: 2-19-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
2-Chlorophenol	0.66	ND
2-Nitrophenol	0.66	ND
Phenol	0.66	ND
2,4-Dimethylphenol	0.66	ND
2,4-Dichlorophenol	0.66	ND
2,4,6-Trichlorophenol	0.66	ND
4-Chloro-3-methylphenol	1.3	ND
2,4-Dinitrophenol	3.3	ND
2,6-Dichlorophenol	--*	ND
2-Methyl-4,6-Dinitrophenol	3.3	ND
Pentachlorophenol	3.3	ND
4-Nitrophenol	3.3	ND
Benzoic Acid	3.3	ND
2-Methylphenol	0.66	ND
3- & 4-Methylphenol	0.66	ND
2,3,4,6-Tetrachlorophenol	--*	ND
2,4,5-Trichlorophenol	0.66	ND


Analyst


Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil

page 1 of 5

Date Received: January 29, 1988
Date Reported: March 4, 1988
DATE REISSUED: March 10, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880217
Sample No.: UF1, B8, SS1, 0'
Date Sampled: 1-28-88
Time Sampled: 1045
Date Extracted: 2-2-88
Date Analyzed: 3-1-88

Compound	Detection	ANALYTICAL RESULTS	
	Limits		
	mg/kg	mg/kg	
1,3-Dichlorobenzene	0.66	ND	
1,4-Dichlorobenzene	0.66	ND	
Hexachloroethane	0.66	ND	
Bis(2-chloroethyl)ether	0.66	ND	
1,2-Dichlorobenzene	0.66	ND	
N-Nitrosodimethylamine	2.5	ND	
Bis(2-chloroisopropyl)ether	0.66	ND	
N-Nitrosodi-n-propyl amine	0.66	ND	
Hexachlorobutadiene	0.66	ND	
1,2,4-Trichlorobenzene	0.66	ND	
Nitrobenzene	0.66	ND	
Sophorone	0.66	ND	
Naphthalene	0.66	ND	
Bis(2-chloroethoxy)methane	0.66	ND	
1-Chloronaphthalene	0.66	ND	
Hexachlorocyclopentadiene	0.66	ND	
Acenaphthylene	0.66	ND	
Acenaphthene	0.66	ND	
Dimethyl phthalate	0.66	ND	
1,6-Dinitrotoluene	0.66	ND	
Fluorene	0.66	ND	
1,4-Dinitrotoluene	0.66	ND	
Diethyl phthalate	0.66	ND	
N-Nitrosodiphenylamine	0.66	ND	
Hexachlorobenzene	0.66	ND	

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 3

Date Received: January 29, 1988
Date Reported: March 4, 1988
DATE REISSUED: March 10, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Folk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880217
Sample No.: QF1, B8, SS1, 01
Date Sampled: 1-29-88
Time Sampled: 1045
Date Extracted: 2-2-88
Date Analyzed: 3-1-88

Compound	Detection Limit mg/kg	ANALYTICAL RESULTS	
		mg/kg	
Phenanthrene	0.66	ND	
Anthracene	0.66	ND	
Dibutyl phthalate	0.66	ND	
Fluoranthene	0.66	ND	
4-Chlorophenyl phenyl ether	0.66	ND	
Pyrene	0.66	ND	
Butyl Benzyl phthalate	0.66	ND	
Bis(2-ethylhexyl) phthalate	0.66	ND	
Chrysene	0.66	ND	
4-Bromophenyl phenyl ether	0.66	ND	
Benzo(a)anthracene	0.66	ND	
D1-n-octylphthalate	0.66	ND	
Benzo(b)fluoranthene	0.66	ND	
Benzo(k)fluoranthene	0.66	ND	
Benzydine	6.0	ND	
1,3'-Dichlorobenzidine	1.3	ND	
Benzo(a)pyrene	0.66	ND	
Indeno(1,2,3-cd)pyrene	0.66	ND	
Dibenzo(a,h)anthracene	0.66	ND	
Benzo(ghi)perylene	0.66	ND	
Benzyl Alcohol	1.3	ND	

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: January 29, 1988
Date Reported: March 4, 1988
DATE REISSUED: March 10, 1988

P.O. No.
Job No. AT077

For: ES:Atlanta/Oolk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr Jim Duncan

Lab Number: 880217
Sample No.: UF1, B8, SS1, 0'
Date Sampled: 1-28-88
Time Sampled: 1045
Date Extracted: 2-2-88
Date Analyzed: 3-1-88

Compound	Detection Limits	Analytical Results
	mg/kg	mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	1.3	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	0.66	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a-,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	0.66	ND
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	3.3	ND
3-Nitroaniline	3.3	ND
4-Nitroaniline	3.3	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SW 8270
Matrix: Soil

page 4 of 5

Date Received: January 29, 1988
Date Reported: March 4, 1988
DATE REISSUED: March 10, 1988

P.O. No.
Job No. AT077

FOR: ES:Atlanta/Oolk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880217
Sample No.: UF1, B8, SS1, 0'
Date Sampled: 1-28-88
Time Sampled: 1045
Date Extracted: 2-2-88
Date Analyzed: 3-1-88

Compound	Detection Limits mg/kg	ANALYTICAL RESULTS	
		mg/kg	
Alpha-BHC	--*	ND	
Gamma-BHC	---	ND	
Beta-BHC	0.4	ND	
Heptachlor	0.2	ND	
Delta-BHC	0.3	ND	
Aldrin	0.2	ND	
Heptachlor epoxide	0.2	ND	
Endosulfan I	--*	ND	
Dieldrin	0.3	ND	
4,4'-DDE	0.6	ND	
Endrin	--*	ND	
Endosulfan II	--*	ND	
4,4'-DDD	0.3	ND	
4,4'-DDT	0.5	ND	
Endosulfan Sulfate	0.6	ND	
Endrin aldehyde	--*	ND	
Endrin Ketone	--*	ND	
Chlordane	4.0	ND	
Methoxychlor	--*	ND	
Toxaphene	4.0	ND	
Aroclor-1016	4.0	ND	
Aroclor-1221	4.0	ND	
Aroclor-1232	4.0	ND	
Aroclor-1242	4.0	ND	
Aroclor-1248	4.0	ND	
Aroclor-1254	4.0	ND	
Aroclor-1260	4.0	ND	

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SW 8270
Matrix: Soil

page 5 of 5

Date Received: January 29, 1988
Date Reported: March 4, 1988
DATE REISSUED: March 10, 1988

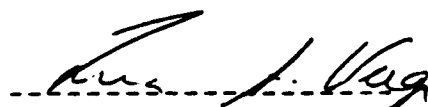
P.O. No.
Job No. AT077

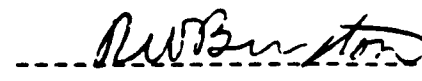
FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880217
Sample No.: UF1, B8, SS1, 0'
Date Sampled: 1-28-88
Time Sampled: 1045
Date Extracted: 2-2-88
Date Analyzed: 3-1-88

Compound	Detection Limits	ANALYTICAL RESULTS
	mg/kg	mg/kg
2-Chlorophenol	0.66	ND
2-Nitrophenol	0.66	ND
Phenol	0.66	ND
2,4-Dimethylphenol	0.66	ND
2,4-Dichlorophenol	0.66	ND
2,4,6-Trichlorophenol	0.66	ND
4-Chloro-3-methylphenol	1.3	ND
2,4-Dinitrophenol	3.3	ND
2,6-Dichlorophenol	--*	ND
2-Methyl-4,6-Dinitrophenol	3.3	ND
Pentachlorophenol	3.3	ND
4-Nitrophenol	3.3	ND
Benzoic Acid	3.3	ND
2-Methylphenol	0.66	ND
3- & 4-Methylphenol	0.66	ND
2,3,4,6-Tetrachlorophenol	--*	ND
2,4,5-Trichlorophenol	0.66	ND


Analyst


Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil

page 1 of 5

Date Received: January 29, 1988
Date Reported: March 4, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880218
Sample No.: UF1, B8, SS2, 3.5'
Date Sampled: 1-28-88
Time Sampled: 1125
Date Extracted: 2-2-88
Date Analyzed: 3-1-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
1,3-Dichlorobenzene	0.66	ND
1,4-Dichlorobenzene	0.66	ND
Hexachloroethane	0.66	ND
Bis(2-chloroethyl)ether	0.66	ND
1,2-Dichlorobenzene	0.66	ND
N-Nitrosodimethylamine	2.5	ND
Bis(2-chloroisopropyl)ether	0.66	ND
N-Nitrosodi-n-propyl amine	0.66	ND
Hexachlorobutadiene	0.66	ND
1,2,4-Trichlorobenzene	0.66	ND
Nitrobenzene	0.66	ND
Isophorone	0.66	ND
Naphthalene	0.66	ND
Bis(2-chloroethoxy)methane	0.66	ND
2-Chloronaphthalene	0.66	ND
Hexachlorocyclopentadiene	0.66	ND
Acenaphthylene	0.66	ND
Acenaphthene	0.66	ND
Dimethyl phthalate	0.66	ND
2,6-Dinitrotoluene	0.66	ND
Fluorene	0.66	ND
2,4-Dinitrotoluene	0.66	ND
Diethyl phthalate	0.66	ND
N-Nitrosodiphenylamine	0.66	ND
Hexachlorobenzene	0.66	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 5

Date Received: January 29, 1988
Date Reported: March 4, 1988

P.O. No. :
Job No. : AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880218
Sample No.: UF1, B8, SS2, 3.5'
Date Sampled: 1-28-88
Time Sampled: 1125
Date Extracted: 2-2-88
Date Analyzed: 3-1-88

Compound	Detection	ANALYTICAL RESULTS	
	Limit mg/kg	mg/kg	
Phenanthrene	0.66	ND	
Anthracene	0.66	ND	
Dibutyl phthalate	0.66	ND	
Fluoranthene	0.66	ND	
4-Chlorophenyl phenyl ether	0.66	ND	
Pyrene	0.66	ND	
Butyl Benzyl phthalate	0.66	ND	
Bis(2-ethylhexyl) phthalate	0.66	ND	
Chrysene	0.66	ND	
4-Bromophenyl phenyl ether	0.66	ND	
Benzo(a)anthracene	0.66	ND	
Di-n-octylphthalate	0.66	ND	
Benzo(b)fluoranthene	0.66	ND	
Benzo(k)fluoranthene	0.66	ND	
Benzidine	6.0	ND	
3,3'-Dichlorobenzidine	1.3	ND	
Benzo(a)pyrene	0.66	ND	
Indeno(1,2,3-cd)pyrene	0.66	ND	
Dibenzo(a,h)anthracene	0.66	ND	
Benzo(ghi)perylene	0.66	ND	
Benzyl Alcohol	1.3	ND	

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: January 29, 1988
Date Reported: March 4, 1988

P.O. No.:
Job No.: AT077

For: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880218
Sample No.: UF1, B8, SS2, 3.5'
Date Sampled: 1-28-88
Time Sampled: 1125
Date Extracted: 2-2-88
Date Analyzed: 3-1-88

Compound	Detection Limits mg/kg	Analytical Results mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	1.3	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	0.66	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a-,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	0.66	ND
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	3.3	ND
3-Nitroaniline	3.3	ND
4-Nitroaniline	3.3	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SW 8270
Matrix: Soil

page 4 of 5

Date Received: January 29, 1988
Date Reported: March 4, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880218
Sample No.: UF1, B8, SS2, 3.5'
Date Sampled: 1-28-88
Time Sampled: 1125
Date Extracted: 2-2-88
Date Analyzed: 3-1-88

Compound	Detection Limits mg/kg	ANALYTICAL RESULTS	
		mg/kg	
Alpha-BHC	--*	ND	
Gamma-BHC	—*	ND	
Beta-BHC	0.4	ND	
Heptachlor	0.2	ND	
Delta-BHC	0.3	ND	
Aldrin	0.2	ND	
Heptachlor epoxide	0.2	ND	
Endosulfan I	--*	ND	
Dieldrin	0.3	ND	
4,4'-DDE	0.6	ND	
Endrin	--*	ND	
Endosulfan II	--*	ND	
4,4'-DDD	0.3	ND	
4,4'-DDT	0.5	ND	
Endosulfan Sulfate	0.6	ND	
Endrin aldehyde	--*	ND	
Endrin Ketone	--*	ND	
Chlordane	4.0	ND	
Methoxychlor	--*	ND	
Toxaphene	4.0	ND	
Aroclor-1016	4.0	ND	
Aroclor-1221	4.0	ND	
Aroclor-1232	4.0	ND	
Aroclor-1242	4.0	ND	
Aroclor-1248	4.0	ND	
Aroclor-1254	4.0	ND	
Aroclor-1260	4.0	ND	

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SW 8270
Matrix: Soil

page 5 of 5

Date Received: January 29, 1988
Date Reported: March 4, 1988

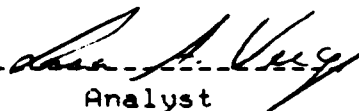
P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880218
Sample No.: UF1, B8, SS2, 3.5'
Date Sampled: 1-28-88
Time Sampled: 1125
Date Extracted: 2-2-88
Date Analyzed: 3-1-88

Compound	Detection Limits mg/kg	ANALYTICAL RESULTS
		mg/kg
2-Chlorophenol	0.66	ND
2-Nitrophenol	0.66	ND
Phenol	0.66	ND
2,4-Dimethylphenol	0.66	ND
2,4-Dichlorophenol	0.66	ND
2,4,6-Trichlorophenol	0.66	ND
4-Chloro-3-methylphenol	1.3	ND
2,4-Dinitrophenol	3.3	ND
2,6-Dichlorophenol	--*	ND
2-Methyl-4,6-Dinitrophenol	3.3	ND
Pentachlorophenol	3.3	ND
4-Nitrophenol	3.3	ND
Benzoic Acid	3.3	ND
2-Methylphenol	0.66	ND
3- & 4-Methylphenol	0.66	ND
2,3,4,6-Tetrachlorophenol	--*	ND
2,4,5-Trichlorophenol	0.66	ND

---  ---
Analyst

---  ---
Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil

page 1 of 5

Date Received: January 29, 1988

Date Reported: March 4, 1988

P.O. No.

Job No. : AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880219
Sample No.: UF1 B8 SS3 8.5'
Date Sampled: 1-28-88
Time Sampled: 1145
Date Extracted: 2-2-88
Date Analyzed: 3-1-88

Compound	Detection	ANALYTICAL RESULTS
	Limits	
	mg/kg	mg/kg
1,3-Dichlorobenzene	0.66	ND
1,4-Dichlorobenzene	0.66	ND
Hexachloroethane	0.66	ND
Bis(2-chloroethyl)ether	0.66	ND
1,2-Dichlorobenzene	0.66	ND
N-Nitrosodimethylamine	2.5	ND
Bis(2-chloroisopropyl)ether	0.66	ND
N-Nitrosodi-n-propyl amine	0.66	ND
Hexachlorobutadiene	0.66	ND
1,2,4-Trichlorobenzene	0.66	ND
Nitrobenzene	0.66	ND
Isophorone	0.66	ND
Naphthalene	0.66	ND
Bis(2-chloroethoxy)methane	0.66	ND
2-Chloronaphthalene	0.66	ND
Hexachlorocyclopentadiene	0.66	ND
Acenaphthylene	0.66	ND
Acenaphthene	0.66	ND
Dimethyl phthalate	0.66	ND
2,6-Dinitrotoluene	0.66	ND
Fluorene	0.66	ND
2,4-Dinitrotoluene	0.66	ND
Diethyl phthalate	0.66	ND
N-Nitrosodiphenylamine	0.66	ND
Hexachlorobenzene	0.66	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 5

Date Received: January 29, 1988
Date Reported: March 4, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880219
Sample No.: UF1 B8 SS3 8.5'
Date Sampled: 1-28-88
Time Sampled: 1145
Date Extracted: 2-2-88
Date Analyzed: 3-1-88

Compound	Detection	ANALYTICAL RESULTS
	Limit mg/kg	mg/kg
Phenanthrene	0.66	ND
Anthracene	0.66	ND
Dibutyl phthalate	0.66	ND
Fluoranthene	0.66	ND
4-Chlorophenyl phenyl ether	0.66	ND
Pyrene	0.66	ND
Butyl Benzyl phthalate	0.66	ND
Bis(2-ethylhexyl) phthalate	0.66	ND
Chrysene	0.66	ND
4-Bromophenyl phenyl ether	0.66	ND
Benzo(a)anthracene	0.66	ND
Di-n-octylphthalate	0.66	ND
Benzo(b)fluoranthene	0.66	ND
Benzo(k)fluoranthene	0.66	ND
Benzidine	6.0	ND
3,3'-Dichlorobenzidine	1.3	ND
Benzo(a)pyrene	0.66	ND
Indeno(1,2,3-cd)pyrene	0.66	ND
Dibenzo(a,h)anthracene	0.66	ND
Benzo(ghi)perylene	0.66	ND
Benzyl Alcohol	1.3	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: January 29, 1988
Date Reported: March 4, 1988

P.O. No.:
Job No.: AT077

For: ES:Atlanta/Oolk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880219
Sample No.: VF1 B8 SS3 8.5'
Date Sampled: 1-28-88
Time Sampled: 1145
Date Extracted: 2-2-88
Date Analyzed: 3-1-88

Compound	Detection Limits mg/kg	Analytical Results mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	1.3	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	0.66	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a-,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	0.66	ND
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	3.3	ND
3-Nitroaniline	3.3	ND
4-Nitroaniline	3.3	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SW 8270
Matrix: Soil

page 4 of 5

Date Received: January 29, 1988
Date Reported: March 4, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880219
Sample No.: VF1 B8 SS3 8.5'
Date Sampled: 1-28-88
Time Sampled: 1145
Date Extracted: 2-2-88
Date Analyzed: 3-1-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
Alpha-BHC	--*	ND
Gamma-BHC	—*	ND
Beta-BHC	0.4	ND
Heptachlor	0.2	ND
Delta-BHC	0.3	ND
Aldrin	0.2	ND
Heptachlor epoxide	0.2	ND
Endosulfan I	--*	ND
Dieldrin	0.3	ND
4,4'-DDE	0.6	ND
Endrin	--*	ND
Endosulfan II	--*	ND
4,4'-DDD	0.3	ND
4,4'-DDT	0.5	ND
Endosulfan Sulfate	0.6	ND
Endrin aldehyde	--*	ND
Endrin Ketone	--*	ND
Chlordane	4.0	ND
Methoxychlor	--*	ND
Toxaphene	4.0	ND
Aroclor-1016	4.0	ND
Aroclor-1221	4.0	ND
Aroclor-1232	4.0	ND
Aroclor-1242	4.0	ND
Aroclor-1248	4.0	ND
Aroclor-1254	4.0	ND
Aroclor-1260	4.0	ND

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SW 8270
Matrix: Soil

page 5 of 5

Date Received: January 29, 1988
Date Reported: March 4, 1988

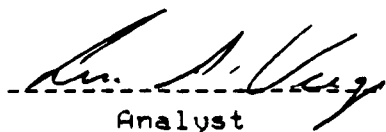
P.O. No.:
Job No.: AT077


FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880219
Sample No.: QF1 B8 SS3 8.5'
Date Sampled: 1-28-88
Time Sampled: 1145
Date Extracted: 2-2-88
Date Analyzed: 3-1-88

Compound	Detection	ANALYTICAL RESULTS	
	Limits mg/kg	mg/kg	
2-Chlorophenol	0.66	ND	
2-Nitrophenol	0.66	ND	
Phenol	0.66	ND	
2,4-Dimethylphenol	0.66	ND	
2,4-Dichlorophenol	0.66	ND	
2,4,6-Trichlorophenol	0.66	ND	
4-Chloro-3-methylphenol	1.3	ND	
2,4-Dinitrophenol	3.3	ND	
2,6-Dichlorophenol	--*	ND	
2-Methyl-4,6-Dinitrophenol	3.3	ND	
Pentachlorophenol	3.3	ND	
4-Nitrophenol	3.3	ND	
Benzoic Acid	3.3	ND	
2-Methylphenol	0.66	ND	
3- & 4-Methylphenol	0.66	ND	
2,3,4,6-Tetrachlorophenol	--*	ND	
2,4,5-Trichlorophenol	0.66	ND	


Analyst


Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil

page 1 of 3

Date Received: January 29, 1988
Date Reported: March 4, 1988
DATE REISSUED: March 10, 1988

P.O. No.
Job No. : AT077

FOR: ES:Atlanta/Oolk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880220
Sample No.: OF1, B9, SS1, 0'
Date Sampled: 1-29-88
Time Sampled: 1320
Date Extracted: 2-2-88
Date Analyzed: 3-1-88

Compound	Detection	ANALYTICAL RESULTS	
	Limits mg/kg	mg/kg	
1,3-Dichlorobenzene	0.66	ND	
1,4-Dichlorobenzene	0.66	ND	
Hexachloroethane	0.66	ND	
Bis(2-chloroethyl)ether	0.66	ND	
1,2-Dichlorobenzene	0.66	ND	
N-Nitrosodimethylamine	2.5	ND	
Bis(2-chloroisopropyl)ether	0.66	ND	
N-Nitrosodi-n-propyl amine	0.66	ND	
Hexachlorobutadiene	0.66	ND	
1,2,4-Trichlorobenzene	0.66	ND	
Nitrobenzene	0.66	ND	
Isophorone	0.66	ND	
Naphthalene	0.66	ND	
Bis(2-chloroethoxy)methane	0.66	ND	
2-Chloronaphthalene	0.66	ND	
Hexachlorocyclopentadiene	0.66	ND	
Acenaphthylene	0.66	ND	
Acenaphthene	0.66	ND	
Dimethyl phthalate	0.66	ND	
2,6-Dinitrotoluene	0.66	ND	
Fluorene	0.66	ND	
2,4-Dinitrotoluene	0.66	ND	
Diethyl phthalate	0.66	ND	
N-Nitrosodiphenylamine	0.66	ND	
Hexachlorobenzene	0.66	ND	

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 3

Date Received: January 29, 1988
Date Reported: March 4, 1988
DATE REISSUED: March 10, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Dolk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 980220
Sample No.: UF1, B9, SS1, 0'
Date Sampled: 1-28-88
Time Sampled: 1320
Date Extracted: 2-2-88
Date Analyzed: 3-1-88

Compound	Detection Limit mg/kg	ANALYTICAL RESULTS mg/kg
Phenanthrene	0.66	ND
Anthracene	0.66	ND
Dibutyl phthalate	0.66	ND
Fluoranthene	0.66	ND
4-Chlorophenyl phenyl ether	0.66	ND
Pyrene	0.66	ND
Butyl Benzyl phthalate	0.66	ND
Bis(2-ethylhexyl) phthalate	0.66	ND
Chrysene	0.66	ND
4-Bromophenyl phenyl ether	0.66	ND
Benzo(a)anthracene	0.66	ND
Di-n-octylphthalate	0.66	ND
Benzo(b)fluoranthene	0.66	ND
Benzo(k)fluoranthene	0.66	ND
Benzidine	6.0	ND
3,3'-Dichlorobenzidine	1.3	ND
Benzo(a)pyrene	0.66	ND
Indeno(1,2,3-cd)pyrene	0.66	ND
Dibenzo(a,h)anthracene	0.66	ND
Benzo(ghi)perylene	0.66	ND
Benzyl Alcohol	1.3	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: January 29, 1988
Date Reported: March 4, 1988
DATE REISSUED: March 10, 1988

P.O. No.:
Job No. AT077

For: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880220
Sample No.: UF1, B9, SS1, 0'
Date Sampled: 1-28-88
Time Sampled: 1320
Date Extracted: 2-2-88
Date Analyzed: 3-1-88

Compound	Detection Limits	Analytical Results
	mg/kg	mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	1.3	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	0.66	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a-,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	0.66	ND
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	3.3	ND
3-Nitroaniline	3.3	ND
4-Nitroaniline	3.3	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SW 8270
Matrix: Soil

page 4 of 5

Date Received: January 29, 1988
Date Reported: March 4, 1988
DATE REISSUED: March 10, 1988

P.O. No. 1111111111
Job No. AT077

FOR: ES-Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 380220
Sample No.: DF1, B9, SS1, 0
Date Sampled: 1-29-88
Time Sampled: 1320
Date Extracted: 2-2-88
Date Analyzed: 3-1-88

Compound	Detection Limits	ANALYTICAL RESULTS
	mg/kg	mg/kg
Alpha-BHC	--*	ND
Gamma-BHC	---	ND
Beta-BHC	0.4	ND
Heptachlor	0.2	ND
Delta-BHC	0.3	ND
Aldrin	0.2	ND
Heptachlor epoxide	0.2	ND
Endosulfan I	--*	ND
Dieldrin	0.3	ND
4,4'-DDE	0.6	ND
Endrin	--*	ND
Endosulfan II	--*	ND
4,4'-DDD	0.3	ND
4,4'-DDT	0.5	ND
Endosulfan Sulfate	0.6	ND
Endrin aldehyde	--*	ND
Endrin Ketone	--*	ND
Chlordane	4.0	ND
Methoxychlor	--*	ND
Toxaphene	4.0	ND
Aroclor-1016	4.0	ND
Aroclor-1221	4.0	ND
Aroclor-1232	4.0	ND
Aroclor-1242	4.0	ND
Aroclor-1248	4.0	ND
Aroclor-1254	4.0	ND
Aroclor-1260	4.0	ND

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SW 8270
Matrix: Soil

page 5 of 6

Date Received: January 29, 1988
Date Reported: March 4, 1988
DATE REISSUED: March 10, 1988

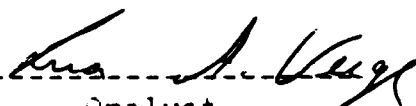
P.O. No.
Job No. : AT027

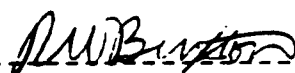
FOR: ES Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 890220
Sample No.: UF1, B9, SS1, 0'
Date Sampled: 1-28-88
Time Sampled: 1320
Date Extracted: 2-2-88
Date Analyzed: 3-1-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
2-Chlorophenol	0.66	ND
2-Nitrophenol	0.66	ND
Phenol	0.66	ND
2,4-Dimethylphenol	0.66	ND
2,4-Dichlorophenol	0.66	ND
2,4,6-Trichlorophenol	0.66	ND
4-Chloro-3-methylphenol	1.3	ND
2,4-Dinitrophenol	3.3	ND
2,6-Dichlorophenol	--*	ND
2-Methyl-4,6-Dinitrophenol	3.3	ND
Pentachlorophenol	3.3	ND
4-Nitrophenol	3.3	ND
Benzoic Acid	3.3	ND
2-Methylphenol	0.66	ND
3- & 4-Methylphenol	0.66	ND
2,3,4,6-Tetrachlorophenol	--*	ND
2,4,5-Trichlorophenol	0.66	ND


Analyst


Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil

page 1 of 5

Date Received: January 29, 1988
Date Reported: March 4, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880215
Sample No.: UF1, B9, SS2, 3.5'
Date Sampled: 1-28-88
Time Sampled: 1350
Date Extracted: 2-2-88
Date Analyzed: 3-1-88

Compound	Detection	ANALYTICAL RESULTS	
	Limits		
	mg/kg	mg/kg	
1,3-Dichlorobenzene	0.66	ND	
1,4-Dichlorobenzene	0.66	ND	
Hexachloroethane	0.66	ND	
Bis(2-chloroethyl)ether	0.66	ND	
1,2-Dichlorobenzene	0.66	ND	
N-Nitrosodimethylamine	2.5	ND	
Bis(2-chloroisopropyl)ether	0.66	ND	
N-Nitrosodi-n-propyl amine	0.66	ND	
Hexachlorobutadiene	0.66	ND	
1,2,4-Trichlorobenzene	0.66	ND	
Nitrobenzene	0.66	ND	
Isophorone	0.66	ND	
Naphthalene	0.66	ND	
Bis(2-chloroethoxy)methane	0.66	ND	
2-Chloronaphthalene	0.66	ND	
Hexachlorocyclopentadiene	0.66	ND	
Acenaphthylene	0.66	ND	
Acenaphthene	0.66	ND	
Dimethyl phthalate	0.66	ND	
2,6-Dinitrotoluene	0.66	ND	
Fluorene	0.66	ND	
2,4-Dinitrotoluene	0.66	ND	
Diethyl phthalate	0.66	ND	
N-Nitrosodiphenylamine	0.66	ND	
Hexachlorobenzene	0.66	ND	

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 5

Date Received: January 29, 1988
Date Reported: March 4, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880215
Sample No.: UF1, B9, SS2, 3.5'
Date Sampled: 1-28-88
Time Sampled: 1350
Date Extracted: 2-2-88
Date Analyzed: 3-1-88

Compound	Detection	ANALYTICAL RESULTS	
	Limit mg/kg	mg/kg	
Phenanthrene	0.66	ND	
Anthracene	0.66	ND	
Dibutyl phthalate	0.66	ND	
Fluoranthene	0.66	ND	
4-Chlorophenyl phenyl ether	0.66	ND	
Pyrene	0.66	ND	
Butyl Benzyl phthalate	0.66	ND	
Bis(2-ethylhexyl) phthalate	0.66	ND	
Chrysene	0.66	ND	
4-Bromophenyl phenyl ether	0.66	ND	
Benzo(a)anthracene	0.66	ND	
Di-n-octylphthalate	0.66	ND	
Benzo(b)fluoranthene	0.66	ND	
Benzo(k)fluoranthene	0.66	ND	
Benzidine	6.0	ND	
3,3'-Dichlorobenzidine	1.3	ND	
Benzo(a)pyrene	0.66	ND	
Indeno(1,2,3-cd)pyrene	0.66	ND	
Dibenzo(a,h)anthracene	0.66	ND	
Benzo(ghi)perylene	0.66	ND	
Benzyl Alcohol	1.3	ND	

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: January 29, 1988

Date Reported: March 4, 1988

P.O. No.:

Job No.: AT077

For: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880215
Sample No.: UF1, B9, SS2, 3.5'
Date Sampled: 1-28-88
Time Sampled: 1350
Date Extracted: 2-2-88
Date Analyzed: 3-1-88

Compound	Detection	Analytical Results
	Limits mg/kg	mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	1.3	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	0.66	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	0.66	ND
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	3.3	ND
3-Nitroaniline	3.3	ND
4-Nitroaniline	3.3	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SW 8270
Matrix: Soil

page 4 of 5

Date Received: January 29, 1988
Date Reported: March 4, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN:Mr. Jim Duncan

Lab Number: 880215
Sample No.: UF1, B9, SS2, 3.5'
Date Sampled: 1-28-88
Time Sampled: 1350
Date Extracted: 2-2-88
Date Analyzed: 3-1-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
Alpha-BHC	--*	ND
Gamma-BHC	---	ND
Beta-BHC	0.4	ND
Heptachlor	0.2	ND
Delta-BHC	0.3	ND
Aldrin	0.2	ND
Heptachlor epoxide	0.2	ND
Endosulfan I	--*	ND
Dieldrin	0.3	ND
4,4'-DDE	0.6	ND
Endrin	--*	ND
Endosulfan II	--*	ND
4,4'-DDD	0.3	ND
4,4'-DDT	0.5	ND
Endosulfan Sulfate	0.6	ND
Endrin aldehyde	--*	ND
Endrin Ketone	--*	ND
Chlordane	4.0	ND
Methoxychlor	--*	ND
Toxaphene	4.0	ND
Aroclor-1016	4.0	ND
Aroclor-1221	4.0	ND
Aroclor-1232	4.0	ND
Aroclor-1242	4.0	ND
Aroclor-1248	4.0	ND
Aroclor-1254	4.0	ND
Aroclor-1260	4.0	ND

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SW 8270
Matrix: Soil

page 5 of 5

Date Received: January 29, 1988
Date Reported: March 4, 1988

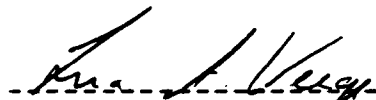
P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 980215
Sample No.: UF1, B9, SS2, 3.5'
Date Sampled: 1-28-88
Time Sampled: 1350
Date Extracted: 2-2-88
Date Analyzed: 3-1-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
2-Chlorophenol	0.66	ND
2-Nitrophenol	0.66	ND
Phenol	0.66	ND
2,4-Dimethylphenol	0.66	ND
2,4-Dichlorophenol	0.66	ND
2,4,6-Trichlorophenol	0.66	ND
4-Chloro-3-methylphenol	1.3	ND
2,4-Dinitrophenol	3.3	ND
2,6-Dichlorophenol	--*	ND
2-Methyl-4,6-Dinitrophenol	3.3	ND
Pentachlorophenol	3.3	ND
4-Nitrophenol	3.3	ND
Benzoic Acid	3.3	ND
2-Methylphenol	0.66	ND
3- & 4-Methylphenol	0.66	ND
2,3,4,6-Tetrachlorophenol	--*	ND
2,4,5-Trichlorophenol	0.66	ND


Analyst


Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 3270
Matrix: Soil

page 1 of 3

Date Received: January 29, 1988
Date Reported: March 4, 1988
DATE REISSUED: March 10, 1988

P.O. No.
Job No. : AT077

FOR: ES:Atlanta/Oolk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 980216
Sample No.: UF1, B9, SS3, 8.5'
Date Sampled: 1-28-88
Time Sampled: 1415
Date Extracted: 2-2-88
Date Analyzed: 3-1-88

Compound	Detection	ANALYTICAL RESULTS	
	Limits mg/kg	mg/kg	
1,3-Dichlorobenzene	0.66	ND	
1,4-Dichlorobenzene	0.66	ND	
Hexachloroethane	0.66	ND	
Bis(2-chloroethyl)ether	0.66	ND	
1,2-Dichlorobenzene	0.66	ND	
N-Nitrosodimethylamine	2.5	ND	
Bis(2-chloroisopropyl)ether	0.66	ND	
N-Nitrosodi-n-propyl amine	0.66	ND	
Hexachlorobutadiene	0.66	ND	
1,2,4-Trichlorobenzene	0.66	ND	
Nitrobenzene	0.66	ND	
Isophorone	0.66	ND	
Naphthalene	0.66	ND	
Bis(2-chloroethoxy)methane	0.66	ND	
2-Chloronaphthalene	0.66	ND	
Hexachlorocyclopentadiene	0.66	ND	
Acenaphthylene	0.66	ND	
Acenaphthene	0.66	ND	
Dimethyl phthalate	0.66	ND	
2,6-Dinitrotoluene	0.66	ND	
Fluorene	0.66	ND	
2,4-Dinitrotoluene	0.66	ND	
Diethyl phthalate	0.66	1.0	
N-Nitrosodiphenylamine	0.66	ND	
Hexachlorobenzene	0.66	ND	

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 5

Date Received: January 29, 1988
Date Reported: March 4, 1988
Date REISSUED: March 10, 1988

P.O. No. :
Job No. : AT077

OR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880216
Sample No.: UF1, B9, SS3, 8.5'
Date Sampled: 1-28-88
Time Sampled: 1415
Date Extracted: 2-2-88
Date Analyzed: 3-1-88

Compound	Detection	ANALYTICAL RESULTS	
	Limit mg/kg	mg/kg	
benanthrene	0.66	ND	
anthracene	0.66	ND	
isobutyl phthalate	0.66	ND	
fluoranthene	0.66	ND	
1-Chlorophenyl phenyl ether	0.66	ND	
pyrene	0.66	ND	
isobutyl Benzyl phthalate	0.66	ND	
is(2-ethylhexyl) phthalate	0.66	ND	
brysene	0.66	ND	
1-Bromophenyl phenyl ether	0.66	ND	
benzo(a)anthracene	0.66	ND	
is-n-octylphthalate	0.66	ND	
benzo(b)fluoranthene	0.66	ND	
benzo(k)fluoranthene	0.66	ND	
benzidine	6.0	ND	
3,3'-Dichlorobenzidine	1.3	ND	
benzo(a)pyrene	0.66	ND	
benzo(1,2,3-cd)pyrene	0.66	ND	
benzo(a,h)anthracene	0.66	ND	
benzo(ghi)perylene	0.66	ND	
benzyl Alcohol	1.3	ND	

Priority Pollutant Analysis
Base Neutrals - SW 9270
Matrix Soil
(continued)

Page 3 of 5

Date Received: January 29, 1988
Date Reported: March 4, 1988
DATE REISSUED: March 10, 1988

P.O. No. 1111111111
Job No. AT077

For: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880216
Sample No.: UF1, B9, SS3, 8.5'
Date Sampled: 1-28-88
Time Sampled: 1415
Date Extracted: 2-2-88
Date Analyzed: 3-1-88

Compound	Detection Limits	Analytical Results
	mg/kg	mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	1.3	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	0.66	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a-,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	0.66	ND
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	3.3	ND
3-Nitroaniline	3.3	ND
4-Nitroaniline	3.3	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds

Priority Pollutant Analysis
Pesticides and PCBs - SW 8270
Matrix: Soil

page 4 of 5

Date Received: January 29, 1988
Date Reported: March 4, 1988
DATE REISSUED: March 10, 1988

P.O. No.
Job No. AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880216
Sample No.: UF1, B9, SS3, 8.5'
Date Sampled: 1-28-88
Time Sampled: 1415
Date Extracted: 2-2-88
Date Analyzed: 3-1-88

Compound	Detection Limits mg/kg	ANALYTICAL RESULTS	
		mg/kg	
Alpha-BHC	--*	ND	
Gamma-BHC	—*	ND	
Beta-BHC	0.4	ND	
Heptachlor	0.2	ND	
Delta-BHC	0.3	ND	
Aldrin	0.2	ND	
Heptachlor epoxide	0.2	ND	
Endosulfan I	--*	ND	
Dieldrin	0.3	ND	
4,4'-DDE	0.6	ND	
Endrin	--*	ND	
Endosulfan II	--*	ND	
4,4'-DDD	0.3	ND	
4,4'-DDT	0.5	ND	
Endosulfan Sulfate	0.6	ND	
Endrin aldehyde	--*	ND	
Endrin Ketone	--*	ND	
Chlordane	4.0	ND	
Methoxychlor	--*	ND	
Toxaphene	4.0	ND	
Proclor-1016	4.0	ND	
Proclor-1221	4.0	ND	
Proclor-1232	4.0	ND	
Proclor-1242	4.0	ND	
Proclor-1248	4.0	ND	
Proclor-1254	4.0	ND	
Proclor-1260	4.0	ND	

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SW 8270
Matrix: Soil

page 5 of 5

Date Received: January 29, 1988
Date Reported: March 4, 1988
DATE REISSUED: March 10, 1988

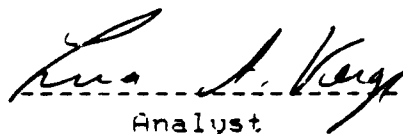
P.O. No.
Job No. AT077

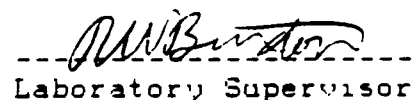
FOR: ES:Atlanta/Oak Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880216
Sample No.: QF1, B9, SS3, 3.5'
Date Sampled: 1-28-88
Time Sampled: 1415
Date Extracted: 2-2-88
Date Analyzed: 3-1-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
2-Chlorophenol	0.66	ND
2-Nitrophenol	0.66	ND
Phenol	0.66	ND
2,4-Dimethylphenol	0.66	ND
2,4-Dichlorophenol	0.66	ND
2,4,6-Trichlorophenol	0.66	ND
4-Chloro-3-methylphenol	1.3	ND
2,4-Dinitrophenol	3.3	ND
2,6-Dichlorophenol	--*	ND
2-Methyl-4,6-Dinitrophenol	3.3	ND
Pentachlorophenol	3.3	ND
4-Nitrophenol	3.3	ND
Benzoic Acid	3.3	ND
2-Methylphenol	0.66	ND
3- & 4-Methylphenol	0.66	ND
2,3,4,6-Tetrachlorophenol	--*	ND
2,4,5-Trichlorophenol	0.66	ND


Analyst


Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil

page 1 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880289
Sample No.: UF1 B-10 SS1, 0.5'
Date Sampled: 2-9-88
Time Sampled: 1015
Date Extracted: 2-17-88
Date Analyzed: 3-8-88

Compound	Detection Limits	ANALYTICAL RESULTS	
	mg/kg	mg/kg	
1,3-Dichlorobenzene	0.66	ND	
1,4-Dichlorobenzene	0.66	ND	
Hexachloroethane	0.66	ND	
Bis(2-chloroethyl)ether	0.66	ND	
1,2-Dichlorobenzene	0.66	ND	
N-Nitrosodimethylamine	2.5	ND	
Bis(2-chloroisopropyl)ether	0.66	ND	
N-Nitrosodi-n-propyl amine	0.66	ND	
Hexachlorobutadiene	0.66	ND	
1,2,4-Trichlorobenzene	0.66	ND	
Nitrobenzene	0.66	ND	
Isophorone	0.66	ND	
Naphthalene	0.66	ND	
Bis(2-chloroethoxy)methane	0.66	ND	
2-Chloronaphthalene	0.66	ND	
Hexachlorocyclopentadiene	0.66	ND	
Acenaphthylene	0.66	ND	
Acenaphthene	0.66	ND	
Dimethyl phthalate	0.66	ND	
2,6-Dinitrotoluene	0.66	ND	
Fluorene	0.66	ND	
2,4-Dinitrotoluene	0.66	ND	
Diethyl phthalate	0.66	ND	
N-Nitrosodiphenylamine	0.66	ND	
Hexachlorobenzene	0.66	ND	

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880289
Sample No.: UF1 B-10 SS1, 0.5'
Date Sampled: 2-9-88
Time Sampled: 1015
Date Extracted: 2-17-88
Date Analyzed: 3-8-88

Compound	Detection	ANALYTICAL RESULTS
	Limit mg/kg	mg/kg
Phenanthrene	0.66	ND
Anthracene	0.66	ND
Dibutyl phthalate	0.66	ND
Fluoranthene	0.66	ND
4-Chlorophenyl phenyl ether	0.66	ND
Pyrene	0.66	ND
Butyl Benzyl phthalate	0.66	ND
Bis(2-ethylhexyl) phthalate	0.66	ND
Chrysene	0.66	ND
4-Bromophenyl phenyl ether	0.66	ND
Benzo(a)anthracene	0.66	ND
Di-n-octylphthalate	0.66	ND
Benzo(b)fluoranthene	0.66	ND
Benzo(k)fluoranthene	0.66	ND
Benzidine	6.0	ND
3,3'-Dichlorobenzidine	1.3	ND
Benzo(a)pyrene	0.66	ND
Indeno(1,2,3-cd)pyrene	0.66	ND
Dibenzo(a,h)anthracene	0.66	ND
Benzo(ghi)perylene	0.66	ND
Benzyl Alcohol	1.3	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.
Job No. : AT077

For: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 380289
Sample No.: UF1 B-10 SS1, 0.5'
Date Sampled: 2-9-88
Time Sampled: 1015
Date Extracted: 2-17-88
Date Analyzed: 3-8-88

Compound	Detection Limits	Analytical Results
	mg/kg	mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	1.3	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	0.66	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a-,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	0.66	ND
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	3.3	ND
3-Nitroaniline	3.3	ND
4-Nitroaniline	3.3	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SW 9270
Matrix: Soil

page 4 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT027

FOR: ES:Atlanta/Folk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880289
Sample No.: UF1 B-10 SS1, 0.5'
Date Sampled: 2-9-88
Time Sampled: 1015
Date Extracted: 2-17-88
Date Analyzed: 3-8-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
Alpha-BHC	--*	ND
Gamma-BHC	—*	ND
Beta-BHC	0.4	ND
Heptachlor	0.2	ND
Delta-BHC	0.3	ND
Aldrin	0.2	ND
Heptachlor epoxide	0.2	ND
Endosulfan I	--*	ND
Dieldrin	0.3	ND
4,4'-DDE	0.6	ND
Endrin	--*	ND
Endosulfan II	--*	ND
4,4'-DDD	0.3	ND
4,4'-DDT	0.5	ND
Endosulfan Sulfate	0.6	ND
Endrin aldehyde	--*	ND
Endrin Ketone	--*	ND
Chlordane	4.0	ND
Methoxychlor	--*	ND
Toxaphene	4.0	ND
Aroclor-1016	4.0	ND
Aroclor-1221	4.0	ND
Aroclor-1232	4.0	ND
Aroclor-1242	4.0	ND
Aroclor-1248	4.0	ND
Aroclor-1254	4.0	ND
Aroclor-1260	4.0	ND

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SW 8270
Matrix: Soil

page 5 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

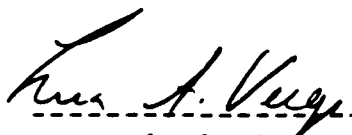
P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329


ATTN: Mr. Jim Duncan

Lab Number: 880289
Sample No.: UF1 B-10 SS1, 0.5'
Date Sampled: 2-9-88
Time Sampled: 1015
Date Extracted: 2-17-88
Date Analyzed: 3-8-88

Compound	Detection	ANALYTICAL RESULTS	
	Limits		
	mg/kg		mg/kg
2-Chlorophenol	0.66		ND
2-Nitrophenol	0.66		ND
Phenol	0.66		ND
2,4-Dimethylphenol	0.66		ND
2,4-Dichlorophenol	0.66		ND
2,4,6-Trichlorophenol	0.66		ND
4-Chloro-3-methylphenol	1.3		ND
2,4-Dinitrophenol	3.3		ND
2,6-Dichlorophenol	--*		ND
2-Methyl-4,6-Dinitrophenol	3.3		ND
Pentachlorophenol	3.3		ND
4-Nitrophenol	3.3		ND
Benzoic Acid	3.3		ND
2-Methylphenol	0.66		ND
3- & 4-Methylphenol	0.66		ND
2,3,4,6-Tetrachlorophenol	--*		ND
2,4,5-Trichlorophenol	0.66		ND



Analyst



Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil

page 1 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880290
Sample No.: UF1 B-27 SS1, 0.5'
Date Sampled: 2-9-88
Time Sampled: 1015
Date Extracted: 2-17-88
Date Analyzed: 3-8-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	
1,3-Dichlorobenzene	0.66	ND
1,4-Dichlorobenzene	0.66	ND
Hexachloroethane	0.66	ND
Bis(2-chloroethyl)ether	0.66	ND
1,2-Dichlorobenzene	0.66	ND
N-Nitrosodimethylamine	2.5	ND
Bis(2-chloroisopropyl)ether	0.66	ND
N-Nitrosodi-n-propyl amine	0.66	ND
Hexachlorobutadiene	0.66	ND
1,2,4-Trichlorobenzene	0.66	ND
Nitrobenzene	0.66	ND
Isophorone	0.66	ND
Naphthalene	0.66	ND
Bis(2-chloroethoxy)methane	0.66	ND
2-Chloronaphthalene	0.66	ND
Hexachlorocyclopentadiene	0.66	ND
Acenaphthylene	0.66	ND
Acenaphthene	0.66	ND
Dimethyl phthalate	0.66	ND
2,6-Dinitrotoluene	0.66	ND
Fluorene	0.66	ND
2,4-Dinitrotoluene	0.66	ND
Diethyl phthalate	0.66	ND
N-Nitrosodiphenylamine	0.66	ND
Hexachlorobenzene	0.66	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Oolk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880290
Sample No.: UF1 B-27 SS1, 0.5'
Date Sampled: 2-9-88
Time Sampled: 1015
Date Extracted: 2-17-88
Date Analyzed: 3-8-88

Compound	Detection	ANALYTICAL RESULTS
	Limit mg/kg	mg/kg
Phenanthrene	0.66	ND
Anthracene	0.66	ND
Dibutyl phthalate	0.66	ND
Fluoranthene	0.66	ND
4-Chlorophenyl phenyl ether	0.66	ND
Pyrene	0.66	ND
Butyl Benzyl phthalate	0.66	ND
Bis(2-ethylhexyl) phthalate	0.66	ND
Chrysene	0.66	ND
4-Bromophenyl phenyl ether	0.66	ND
Benzo(a)anthracene	0.66	ND
Di-n-octylphthalate	0.66	ND
Benzo(b)fluoranthene	0.66	ND
Benzo(k)fluoranthene	0.66	ND
Benzidine	6.0	ND
3,3'-Dichlorobenzidine	1.3	ND
Benzo(a)pyrene	0.66	ND
Indeno(1,2,3-cd)pyrene	0.66	ND
Dibenzo(a,h)anthracene	0.66	ND
Benzo(ghi)perylene	0.66	ND
Benzyl Alcohol	1.3	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

For: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880290
Sample No.: QF1 B-27 SS1, 0.5'
Date Sampled: 2-9-88
Time Sampled: 1015
Date Extracted: 2-17-88
Date Analyzed: 3-8-88

Compound	Detection	Analytical Results
	Limits mg/kg	mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	1.3	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	0.66	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	0.66	ND
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	3.3	ND
3-Nitroaniline	3.3	ND
4-Nitroaniline	3.3	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SW 8270
Matrix: Soil

page 4 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880290
Sample No.: UF1 B-27 SS1, 0.5'
Date Sampled: 2-9-88
Time Sampled: 1015
Date Extracted: 2-17-88
Date Analyzed: 3-8-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
Alpha-BHC	--*	ND
Gamma-BHC	---	ND
Beta-BHC	0.4	ND
Heptachlor	0.2	ND
Delta-BHC	0.3	ND
Aldrin	0.2	ND
Heptachlor epoxide	0.2	ND
Endosulfan I	--*	ND
Dieldrin	0.3	ND
4,4'-DDE	0.6	ND
Endrin	--*	ND
Endosulfan II	--*	ND
4,4'-DDD	0.3	ND
4,4'-DDT	0.5	ND
Endosulfan Sulfate	0.6	ND
Endrin aldehyde	--*	ND
Endrin Ketone	--*	ND
Chlordane	4.0	ND
Methoxychlor	--*	ND
Toxaphene	4.0	ND
Aroclor-1016	4.0	ND
Aroclor-1221	4.0	ND
Aroclor-1232	4.0	ND
Aroclor-1242	4.0	ND
Aroclor-1248	4.0	ND
Aroclor-1254	4.0	ND
Aroclor-1260	4.0	ND

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SW 8270
Matrix: Soil

page 5 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

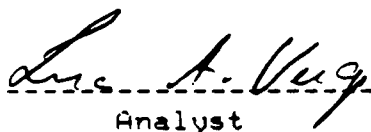
P.O. No.:
Job No.: AT077


FOR: ES:Atlanta/Folk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880290
Sample No.: UF1 B-27 SS1, 0.5'
Date Sampled: 2-9-88
Time Sampled: 1015
Date Extracted: 2-17-88
Date Analyzed: 3-8-88

Compound	Detection Limits	ANALYTICAL RESULTS
	mg/kg	mg/kg
2-Chlorophenol	0.66	ND
2-Nitrophenol	0.66	ND
Phenol	0.66	ND
2,4-Dimethylphenol	0.66	ND
2,4-Dichlorophenol	0.66	ND
2,4,6-Trichlorophenol	0.66	ND
4-Chloro-3-methylphenol	1.3	ND
2,4-Dinitrophenol	3.3	ND
2,6-Dichlorophenol	--*	ND
2-Methyl-4,6-Dinitrophenol	3.3	ND
Pentachlorophenol	3.3	ND
4-Nitrophenol	3.3	ND
Benzoic Acid	3.3	ND
2-Methylphenol	0.66	ND
3- & 4-Methylphenol	0.66	ND
2,3,4,6-Tetrachlorophenol	--*	ND
2,4,5-Trichlorophenol	0.66	ND


Analyst


Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil

page 1 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Oolk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880291
Sample No.: UF1 B-10 SS2, 3.5'
Date Sampled: 2-9-88
Time Sampled: 1045
Date Extracted: 2-17-88
Date Analyzed: 3-9-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
1,3-Dichlorobenzene	0.66	ND
1,4-Dichlorobenzene	0.66	ND
Hexachloroethane	0.66	ND
Bis(2-chloroethyl)ether	0.66	ND
1,2-Dichlorobenzene	0.66	ND
N-Nitrosodimethylamine	2.5	ND
Bis(2-chloroisopropyl)ether	0.66	ND
N-Nitrosodi-n-propyl amine	0.66	ND
Hexachlorobutadiene	0.66	ND
1,2,4-Trichlorobenzene	0.66	ND
Nitrobenzene	0.66	ND
Isophorone	0.66	ND
Naphthalene	0.66	ND
Bis(2-chloroethoxy)methane	0.66	ND
2-Chloronaphthalene	0.66	ND
Hexachlorocyclopentadiene	0.66	ND
Acenaphthylene	0.66	ND
Acenaphthene	0.66	ND
Dimethyl phthalate	0.66	ND
2,6-Dinitrotoluene	0.66	ND
Fluorene	0.66	ND
2,4-Dinitrotoluene	0.66	ND
Diethyl phthalate	0.66	ND
N-Nitrosodiphenylamine	0.66	ND
Hexachlorobenzene	0.66	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880291
Sample No.: UF1 B-10 SS2, 3.5'
Date Sampled: 2-9-88
Time Sampled: 1045
Date Extracted: 2-17-88
Date Analyzed: 3-9-88

Compound	Detection Limit mg/kg	ANALYTICAL RESULTS
		mg/kg
Phenanthrene	0.66	ND
Anthracene	0.66	ND
Dibutyl phthalate	0.66	ND
Fluoranthene	0.66	ND
4-Chlorophenyl phenyl ether	0.66	ND
Pyrene	0.66	ND
Butyl Benzyl phthalate	0.66	ND
Bis(2-ethylhexyl) phthalate	0.66	ND
Chrysene	0.66	ND
4-Bromophenyl phenyl ether	0.66	ND
Benzo(a)anthracene	0.66	ND
Di-n-octylphthalate	0.66	ND
Benzo(b)fluoranthene	0.66	ND
Benzo(k)fluoranthene	0.66	ND
Benzidine	6.0	ND
3,3'-Dichlorobenzidine	1.3	ND
Benzo(a)pyrene	0.66	ND
Indeno(1,2,3-cd)pyrene	0.66	ND
Dibenzo(a,h)anthracene	0.66	ND
Benzo(ghi)perylene	0.66	ND
Benzyl Alcohol	1.3	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

For: ES:Atlanta/Dolk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880291
Sample No.: QF1 B-10 SS2, 3.5'
Date Sampled: 2-9-88
Time Sampled: 1045
Date Extracted: 2-17-88
Date Analyzed: 3-9-88

Compound	Detection Limits	Analytical Results
	mg/kg	mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	1.3	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	0.66	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a-,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	0.66	ND
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	3.3	ND
3-Nitroaniline	3.3	ND
4-Nitroaniline	3.3	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SW 8270
Matrix: Soil

page 4 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Oolk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880291
Sample No.: QF1 B-10 SS2, 3.5'
Date Sampled: 2-9-88
Time Sampled: 1045
Date Extracted: 2-17-88
Date Analyzed: 3-9-88

Compound	Detection Limits mg/kg	ANALYTICAL RESULTS	
		mg/kg	
Alpha-BHC	--*	ND	
Gamma-BHC	—*	ND	
Beta-BHC	0.4	ND	
Heptachlor	0.2	ND	
Delta-BHC	0.3	ND	
Aldrin	0.2	ND	
Heptachlor epoxide	0.2	ND	
Endosulfan I	--*	ND	
Dieldrin	0.3	ND	
4,4'-DDE	0.6	ND	
Endrin	--*	ND	
Endosulfan II	--*	ND	
4,4'-DDD	0.3	ND	
4,4'-DDT	0.5	ND	
Endosulfan Sulfate	0.6	ND	
Endrin aldehyde	--*	ND	
Endrin Ketone	--*	ND	
Chlordane	4.0	ND	
Methoxychlor	--*	ND	
Toxaphene	4.0	ND	
Aroclor-1016	4.0	ND	
Aroclor-1221	4.0	ND	
Aroclor-1232	4.0	ND	
Aroclor-1242	4.0	ND	
Aroclor-1248	4.0	ND	
Aroclor-1254	4.0	ND	
Aroclor-1260	4.0	ND	

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SW 8270
Matrix: Soil

page 5 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880291
Sample No.: UF1 B-10 SS2, 3.5'
Date Sampled: 2-9-88
Time Sampled: 1045
Date Extracted: 2-17-88
Date Analyzed: 3-9-88

Compound	Detection Limits mg/kg	ANALYTICAL RESULTS	
		mg/kg	
2-Chlorophenol	0.66	ND	
2-Nitrophenol	0.66	ND	
Phenol	0.66	ND	
2,4-Dimethylphenol	0.66	ND	
2,4-Dichlorophenol	0.66	ND	
2,4,6-Trichlorophenol	0.66	ND	
4-Chloro-3-methylphenol	1.3	ND	
2,4-Dinitrophenol	3.3	ND	
2,6-Dichlorophenol	--*	ND	
2-Methyl-4,6-Dinitrophenol	3.3	ND	
Pentachlorophenol	3.3	ND	
4-Nitrophenol	3.3	ND	
Benzoic Acid	3.3	ND	
2-Methylphenol	0.66	ND	
3- & 4-Methylphenol	0.66	ND	
2,3,4,6-Tetrachlorophenol	--*	ND	
2,4,5-Trichlorophenol	0.66	ND	


Analyst


Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil

page 1 of 3

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 980292
Sample No.: UF1 B-10 SS3, 8.5'
Date Sampled: 2-9-88
Time Sampled: 1125
Date Extracted: 2-17-88
Date Analyzed: 3-9-88

Compound	Detection	ANALYTICAL RESULTS	
	Limits mg/kg	mg/kg	
1,3-Dichlorobenzene	0.66	ND	
1,4-Dichlorobenzene	0.66	ND	
Hexachloroethane	0.66	ND	
Bis(2-chloroethyl)ether	0.66	ND	
1,2-Dichlorobenzene	0.66	ND	
N-Nitrosodimethylamine	2.5	ND	
Bis(2-chloroisopropyl)ether	0.66	ND	
N-Nitrosodi-n-propyl amine	0.66	ND	
Hexachlorobutadiene	0.66	ND	
1,2,4-Trichlorobenzene	0.66	ND	
Nitrobenzene	0.66	ND	
Isophorone	0.66	ND	
Naphthalene	0.66	ND	
Bis(2-chloroethoxy)methane	0.66	ND	
2-Chloronaphthalene	0.66	ND	
Hexachlorocyclopentadiene	0.66	ND	
Acenaphthylene	0.66	ND	
Acenaphthene	0.66	ND	
Dimethyl phthalate	0.66	ND	
2,6-Dinitrotoluene	0.66	ND	
Fluorene	0.66	ND	
2,4-Dinitrotoluene	0.66	ND	
Diethyl phthalate	0.66	ND	
N-Nitrosodiphenylamine	0.66	ND	
Hexachlorobenzene	0.66	ND	

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880292
Sample No.: VF1 B-10 SS3, 8.5'
Date Sampled: 2-9-88
Time Sampled: 1125
Date Extracted: 2-17-88
Date Analyzed: 3-9-88

Compound	Detection Limit mg/kg	ANALYTICAL RESULTS
		mg/kg
Phenanthrene	0.66	ND
Anthracene	0.66	ND
Dibutyl phthalate	0.66	ND
Fluoranthene	0.66	ND
4-Chlorophenyl phenyl ether	0.66	ND
Pyrene	0.66	ND
Butyl Benzyl phthalate	0.66	ND
Bis(2-ethylhexyl) phthalate	0.66	ND
Chrysene	0.66	ND
4-Bromophenyl phenyl ether	0.66	ND
Benzo(a)anthracene	0.66	ND
Di-n-octylphthalate	0.66	ND
Benzo(b)fluoranthene	0.66	ND
Benzo(k)fluoranthene	0.66	ND
Benzidine	6.0	ND
3,3'-Dichlorobenzidine	1.3	ND
Benzo(a)pyrene	0.66	ND
Indeno(1,2,3-cd)pyrene	0.66	ND
Dibenzo(a,h)anthracene	0.66	ND
Benzo(ghi)perylene	0.66	ND
Benzyl Alcohol	1.3	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

For: ES:Atlanta/Oolk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880292
Sample No.: UF1 B-10 SS3, 3.5'
Date Sampled: 2-9-88
Time Sampled: 1125
Date Extracted: 2-17-88
Date Analyzed: 3-9-88

Compound	Detection Limits mg/kg	Analytical Results
		mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	1.3	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	0.66	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a-,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	0.66	ND
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	3.3	ND
3-Nitroaniline	3.3	ND
4-Nitroaniline	3.3	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SW 9270
Matrix: Soil

page 4 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

FDR: ES Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880292
Sample No.: UF1 B-10 SS3, 8.5'
Date Sampled: 2-9-88
Time Sampled: 1125
Date Extracted: 2-17-88
Date Analyzed: 3-9-88

Compound	Detection Limits	ANALYTICAL RESULTS
	mg/kg	mg/kg
Alpha-BHC	--*	ND
Gamma-BHC	—*	ND
Beta-BHC	0.4	ND
Heptachlor	0.2	ND
Delta-BHC	0.3	ND
Aldrin	0.2	ND
Heptachlor epoxide	0.2	ND
Endosulfan I	--*	ND
Dieldrin	0.3	ND
4,4'-DDE	0.6	ND
Endrin	--*	ND
Endosulfan II	--*	ND
4,4'-DDD	0.3	ND
4,4'-DDT	0.5	ND
Endosulfan Sulfate	0.6	ND
Endrin aldehyde	--*	ND
Endrin Ketone	--*	ND
Chlordane	4.0	ND
Methoxychlor	--*	ND
Toxaphene	4.0	ND
Aroclor-1016	4.0	ND
Aroclor-1221	4.0	ND
Aroclor-1232	4.0	ND
Aroclor-1242	4.0	ND
Aroclor-1248	4.0	ND
Aroclor-1254	4.0	ND
Aroclor-1260	4.0	ND

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SW 8270
Matrix: Soil

page 5 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

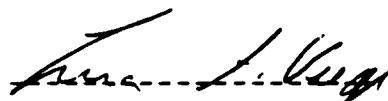
P.O. No.:
Job No.: AT077

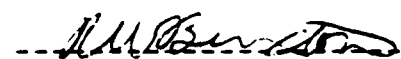
FOR: ES:Atlanta/Folk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880292
Sample No.: UF1 B-10 SS3, 3.5'
Date Sampled: 2-9-88
Time Sampled: 1125
Date Extracted: 2-17-88
Date Analyzed: 3-9-88

Compound	Detection	ANALYTICAL RESULTS	
	Limits mg/kg	mg/kg	
2-Chlorophenol	0.66	ND	
2-Nitrophenol	0.66	ND	
Phenol	0.66	ND	
2,4-Dimethylphenol	0.66	ND	
2,4-Dichlorophenol	0.66	ND	
2,4,6-Trichlorophenol	0.66	ND	
4-Chloro-3-methylphenol	1.3	ND	
2,4-Dinitrophenol	3.3	ND	
2,6-Dichlorophenol	--*	ND	
2-Methyl-4,6-Dinitrophenol	3.3	ND	
Pentachlorophenol	3.3	ND	
4-Nitrophenol	3.3	ND	
Benzoic Acid	3.3	ND	
2-Methylphenol	0.66	ND	
3- & 4-Methylphenol	0.66	ND	
2,3,4,6-Tetrachlorophenol	--*	ND	
2,4,5-Trichlorophenol	0.66	ND	


Analyst


Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil

page 1 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880293
Sample No.: UF1 B-11 SS1, 1.0'
Date Sampled: 2-9-88
Time Sampled: 1300
Date Extracted: 2-17-88
Date Analyzed: 3-10-88

Compound	Detection	ANALYTICAL RESULTS	
	Limits		
	mg/kg	mg/kg	
1,3-Dichlorobenzene	0.66	ND	
1,4-Dichlorobenzene	0.66	ND	
Hexachloroethane	0.66	ND	
Bis(2-chloroethyl)ether	0.66	ND	
1,2-Dichlorobenzene	0.66	ND	
N-Nitrosodimethylamine	2.5	ND	
Bis(2-chloroisopropyl)ether	0.66	ND	
N-Nitrosodi-n-propyl amine	0.66	ND	
Hexachlorobutadiene	0.66	ND	
1,2,4-Trichlorobenzene	0.66	ND	
Nitrobenzene	0.66	ND	
Isophorone	0.66	ND	
Naphthalene	0.66	ND	
Bis(2-chloroethoxy)methane	0.66	ND	
2-Chloronaphthalene	0.66	ND	
Hexachlorocyclopentadiene	0.66	ND	
Acenaphthylene	0.66	ND	
Acenaphthene	0.66	ND	
Dimethyl phthalate	0.66	ND	
2,6-Dinitrotoluene	0.66	ND	
Fluorene	0.66	ND	
2,4-Dinitrotoluene	0.66	ND	
Diethyl phthalate	0.66	ND	
N-Nitrosodiphenylamine	0.66	ND	
Hexachlorobenzene	0.66	ND	

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.
Job No. : AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880293
Sample No.: UF1 B-11 SS1, 1.0'
Date Sampled: 2-9-88
Time Sampled: 1300
Date Extracted: 2-17-88
Date Analyzed: 3-10-88

Compound	Detection Limit mg/kg	ANALYTICAL RESULTS
		mg/kg
Phenanthrene	0.66	ND
Anthracene	0.66	ND
Dibutyl phthalate	0.66	ND
Fluoranthene	0.66	ND
4-Chlorophenyl phenyl ether	0.66	ND
Pyrene	0.66	ND
Butyl Benzyl phthalate	0.66	ND
Bis(2-ethylhexyl) phthalate	0.66	ND
Chrysene	0.66	ND
4-Bromophenyl phenyl ether	0.66	ND
Benzo(a)anthracene	0.66	ND
Di-n-octylphthalate	0.66	ND
Benzo(b)fluoranthene	0.66	ND
Benzo(k)fluoranthene	0.66	ND
Benzidine	6.0	ND
3,3'-Dichlorobenzidine	1.3	ND
Benzo(a)pyrene	0.66	ND
Indeno(1,2,3-cd)pyrene	0.66	ND
Dibenzo(a,h)anthracene	0.66	ND
Benzo(ghi)perylene	0.66	ND
Benzyl Alcohol	1.3	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

For: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880293
Sample No.: QF1 B-11 SS1, 1.0'
Date Sampled: 2-9-88
Time Sampled: 1300
Date Extracted: 2-17-88
Date Analyzed: 3-10-88

Compound	Detection Limits	Analytical Results
	mg/kg	mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	1.3	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	0.66	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a-,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	0.66	ND
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	3.3	ND
3-Nitroaniline	3.3	ND
4-Nitroaniline	3.3	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SW 9270
Matrix: Soil

page 4 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880293
Sample No.: VF1 B-11 SS1, 1.0'
Date Sampled: 2-9-88
Time Sampled: 1300
Date Extracted: 2-17-88
Date Analyzed: 3-10-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
Alpha-BHC	--*	ND
Gamma-BHC	—*	ND
Beta-BHC	0.4	ND
Heptachlor	0.2	ND
Delta-BHC	0.3	ND
Aldrin	0.2	ND
Heptachlor epoxide	0.2	ND
Endosulfan I	--*	ND
Dieldrin	0.3	ND
4,4'-DDE	0.6	ND
Endrin	--*	ND
Endosulfan II	--*	ND
4,4'-DDD	0.3	ND
4,4'-DDT	0.5	ND
Endosulfan Sulfate	0.6	ND
Endrin aldehyde	--*	ND
Endrin Ketone	--*	ND
Chlordane	4.0	ND
Methoxychlor	--*	ND
Toxaphene	4.0	ND
Aroclor-1016	4.0	ND
Aroclor-1221	4.0	ND
Aroclor-1232	4.0	ND
Aroclor-1242	4.0	ND
Aroclor-1248	4.0	ND
Aroclor-1254	4.0	ND
Aroclor-1260	4.0	ND

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SW 8270
Matrix: Soil

page 5 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

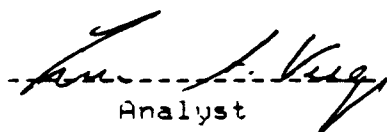
P.O. No.
Job No. AT077

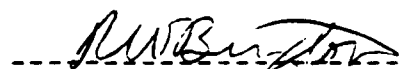
FOR: ES:Atlanta/Oolk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 890293
Sample No.: QF1 B-11 SS1, 1.0'
Date Sampled: 2-9-88
Time Sampled: 1300
Date Extracted: 2-17-88
Date Analyzed: 3-10-88

Compound	Detection Limits mg/kg	ANALYTICAL RESULTS
		mg/kg
2-Chlorophenol	0.66	ND
2-Nitrophenol	0.66	ND
Phenol	0.66	ND
2,4-Dimethylphenol	0.66	ND
2,4-Dichlorophenol	0.66	ND
2,4,6-Trichlorophenol	0.66	ND
4-Chloro-3-methylphenol	1.3	ND
2,4-Dinitrophenol	3.3	ND
2,6-Dichlorophenol	--*	ND
2-Methyl-4,6-Dinitrophenol	3.3	ND
Pentachlorophenol	3.3	ND
4-Nitrophenol	3.3	ND
Benzoic Acid	3.3	ND
2-Methylphenol	0.66	ND
3- & 4-Methylphenol	0.66	ND
2,3,4,6-Tetrachlorophenol	--*	ND
2,4,5-Trichlorophenol	0.66	ND


Analyst


Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil

page 1 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 980294
Sample No.: UF1 B-11 SS2, 3.5'
Date Sampled: 2-9-88
Time Sampled: 1320
Date Extracted: 2-17-88
Date Analyzed: 3-10-88

Compound	Detection	ANALYTICAL RESULTS
	Limits	
	mg/kg	mg/kg
1,3-Dichlorobenzene	0.66	ND
1,4-Dichlorobenzene	0.66	ND
Hexachloroethane	0.66	ND
Bis(2-chloroethyl)ether	0.66	ND
1,2-Dichlorobenzene	0.66	ND
N-Nitrosodimethylamine	2.5	ND
Bis(2-chloroisopropyl)ether	0.66	ND
N-Nitrosodi-n-propyl amine	0.66	ND
Hexachlorobutadiene	0.66	ND
1,2,4-Trichlorobenzene	0.66	ND
Nitrobenzene	0.66	ND
Isophorone	0.66	ND
Naphthalene	0.66	ND
Bis(2-chloroethoxy)methane	0.66	ND
2-Chloronaphthalene	0.66	ND
Hexachlorocyclopentadiene	0.66	ND
Acenaphthylene	0.66	ND
Acenaphthene	0.66	ND
Dimethyl phthalate	0.66	ND
2,6-Dinitrotoluene	0.66	ND
Fluorene	0.66	ND
2,4-Dinitrotoluene	0.66	ND
Diethyl phthalate	0.66	ND
N-Nitrosodiphenylamine	0.66	ND
Hexachlorobenzene	0.66	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880294
Sample No.: UF1 B-11 SS2, 3.5'
Date Sampled: 2-9-88
Time Sampled: 1320
Date Extracted: 2-17-88
Date Analyzed: 3-10-88

Compound	Detection	ANALYTICAL RESULTS	
	Limit mg/kg	mg/kg	
Phenanthrene	0.66	ND	
Anthracene	0.66	ND	
Dibutyl phthalate	0.66	ND	
Fluoranthene	0.66	ND	
4-Chlorophenyl phenyl ether	0.66	ND	
Pyrene	0.66	ND	
Butyl Benzyl phthalate	0.66	ND	
Bis(2-ethylhexyl) phthalate	0.66	ND	
Chrysene	0.66	ND	
4-Bromophenyl phenyl ether	0.66	ND	
Benzo(a)anthracene	0.66	ND	
Di-n-octylphthalate	0.66	ND	
Benzo(b)fluoranthene	0.66	ND	
Benzo(k)fluoranthene	0.66	ND	
Benzidine	6.0	ND	
3,3'-Dichlorobenzidine	1.3	ND	
Benzo(a)pyrene	0.66	ND	
Indeno(1,2,3-cd)pyrene	0.66	ND	
Dibenzo(a,h)anthracene	0.66	ND	
Benzo(ghi)perylene	0.66	ND	
Benzyl Alcohol	1.3	ND	

Priority Pollutant Analysis
Base Neutrals - SW 9270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

For: ES Atlanta/Oak Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880294
Sample No.: QF1 B-11 SS2, 3.5'
Date Sampled: 2-9-88
Time Sampled: 1320
Date Extracted: 2-17-88
Date Analyzed: 3-10-88

Compound	Detection Limits	Analytical Results
	mg/kg	mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	1.3	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	0.66	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	0.66	ND
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	3.3	ND
3-Nitroaniline	3.3	ND
4-Nitroaniline	3.3	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SW 8270
Matrix: Soil

page 4 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN:Mr. Jim Duncan

Lab Number: 880294
Sample No.: UF1 B-11 SS2, 3.5'
Date Sampled: 2-9-88
Time Sampled: 1320
Date Extracted: 2-17-88
Date Analyzed: 3-10-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
Alpha-BHC	--*	ND
Gamma-BHC	---	ND
Beta-BHC	0.4	ND
Heptachlor	0.2	ND
Delta-BHC	0.3	ND
Aldrin	0.2	ND
Heptachlor epoxide	0.2	ND
Endosulfan I	--*	ND
Dieldrin	0.3	ND
4,4'-DDE	0.6	ND
Endrin	--*	ND
Endosulfan II	--*	ND
4,4'-DDD	0.3	ND
4,4'-DDT	0.5	ND
Endosulfan Sulfate	0.6	ND
Endrin aldehyde	--*	ND
Endrin Ketone	--*	ND
Chlordane	4.0	ND
Methoxychlor	--*	ND
Toxaphene	4.0	ND
Aroclor-1016	4.0	ND
Aroclor-1221	4.0	ND
Aroclor-1232	4.0	ND
Aroclor-1242	4.0	ND
Aroclor-1248	4.0	ND
Aroclor-1254	4.0	ND
Aroclor-1260	4.0	ND

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SW 8270
Matrix: Soil

page 5 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

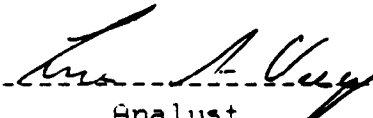
P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Dolk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880294
Sample No.: UF1 B-11 SS2, 3.5'
Date Sampled: 2-9-88
Time Sampled: 1320
Date Extracted: 2-17-88
Date Analyzed: 3-10-88

Compound	Detection	ANALYTICAL RESULTS	
	Limits mg/kg	mg/kg	
2-Chlorophenol	0.66	ND	
2-Nitrophenol	0.66	ND	
Phenol	0.66	ND	
2,4-Dimethylphenol	0.66	ND	
2,4-Dichlorophenol	0.66	ND	
2,4,6-Trichlorophenol	0.66	ND	
4-Chloro-3-methylphenol	1.3	ND	
2,4-Dinitrophenol	3.3	ND	
2,6-Dichlorophenol	--*	ND	
2-Methyl-4,6-Dinitrophenol	3.3	ND	
Pentachlorophenol	3.3	ND	
4-Nitrophenol	3.3	ND	
Benzoic Acid	3.3	ND	
2-Methylphenol	0.66	ND	
3- & 4-Methylphenol	0.66	ND	
2,3,4,6-Tetrachlorophenol	--*	ND	
2,4,5-Trichlorophenol	0.66	ND	


Analyst


Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil

page 1 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880295
Sample No.: VF1 B-11 SS3, 8.5'
Date Sampled: 2-9-88
Time Sampled: 1340
Date Extracted: 2-17-88
Date Analyzed: 3-10-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
1,3-Dichlorobenzene	0.66	ND
1,4-Dichlorobenzene	0.66	ND
Hexachloroethane	0.66	ND
Bis(2-chloroethyl)ether	0.66	ND
1,2-Dichlorobenzene	0.66	ND
N-Nitrosodimethylamine	2.5	ND
Bis(2-chloroisopropyl)ether	0.66	ND
N-Nitrosodi-n-propyl amine	0.66	ND
Hexachlorobutadiene	0.66	ND
1,2,4-Trichlorobenzene	0.66	ND
Nitrobenzene	0.66	ND
Isophorone	0.66	ND
Naphthalene	0.66	1.8
Bis(2-chloroethoxy)methane	0.66	ND
2-Chloronaphthalene	0.66	ND
Hexachlorocyclopentadiene	0.66	ND
Acenaphthylene	0.66	ND
Acenaphthene	0.66	ND
Dimethyl phthalate	0.66	ND
2,6-Dinitrotoluene	0.66	ND
Fluorene	0.66	ND
2,4-Dinitrotoluene	0.66	ND
Diethyl phthalate	0.66	ND
N-Nitrosodiphenylamine	0.66	ND
Hexachlorobenzene	0.66	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880295
Sample No.: UF1 B-11 SS3, 8.5'
Date Sampled: 2-9-88
Time Sampled: 1340
Date Extracted: 2-17-88
Date Analyzed: 3-10-88

Compound	Detection	ANALYTICAL RESULTS
	Limit mg/kg	mg/kg
Phenanthrene	0.66	ND
Anthracene	0.66	ND
Dibutyl phthalate	0.66	ND
Fluoranthene	0.66	ND
4-Chlorophenyl phenyl ether	0.66	ND
Pyrene	0.66	ND
Butyl Benzyl phthalate	0.66	ND
Bis(2-ethylhexyl) phthalate	0.66	ND
Chrysene	0.66	ND
4-Bromophenyl phenyl ether	0.66	ND
Benzo(a)anthracene	0.66	ND
Di-n-octylphthalate	0.66	ND
Benzo(b)fluoranthene	0.66	ND
Benzo(k)fluoranthene	0.66	ND
Benzidine	6.0	ND
3,3'-Dichlorobenzidine	1.3	ND
Benzo(a)pyrene	0.66	ND
Indeno(1,2,3-cd)pyrene	0.66	ND
Dibenzo(a,h)anthracene	0.66	ND
Benzo(ghi)perylene	0.66	ND
Benzyl Alcohol	1.3	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

For: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880295
Sample No.: VF1 B-11 SS3, 8.5'
Date Sampled: 2-9-88
Time Sampled: 1340
Date Extracted: 2-17-88
Date Analyzed: 3-10-88

Compound	Detection Limits	Analytical Results
	mg/kg	mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	1.3	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	0.66	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a-,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	0.66	2.4
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	3.3	ND
3-Nitroaniline	3.3	ND
4-Nitroaniline	3.3	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SW 8270
Matrix: Soil

page 4 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No. : AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN:Mr. Jim Duncan

Lab Number: 880295
Sample No.: UF1 B-11 SS3, 8.5'
Date Sampled: 2-9-88
Time Sampled: 1340
Date Extracted: 2-17-88
Date Analyzed: 3-10-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
Alpha-BHC	--*	ND
Gamma-BHC	---	ND
Beta-BHC	0.4	ND
Heptachlor	0.2	ND
Delta-BHC	0.3	ND
Aldrin	0.2	ND
Heptachlor epoxide	0.2	ND
Endosulfan I	--*	ND
Dieldrin	0.3	ND
4,4'-DDE	0.6	ND
Endrin	--*	ND
Endosulfan II	--*	ND
4,4'-DDD	0.3	ND
4,4'-DDT	0.5	ND
Endosulfan Sulfate	0.6	ND
Endrin aldehyde	--*	ND
Endrin Ketone	--*	ND
Chlordane	4.0	ND
Methoxychlor	--*	ND
Toxaphene	4.0	ND
Aroclor-1016	4.0	ND
Aroclor-1221	4.0	ND
Aroclor-1232	4.0	ND
Aroclor-1242	4.0	ND
Aroclor-1248	4.0	ND
Aroclor-1254	4.0	ND
Aroclor-1260	4.0	ND

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SW 8270
Matrix: Soil

page 5 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

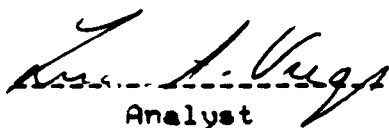
P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880295
Sample No.: VF1 B-11 SS3, 8.5'
Date Sampled: 2-9-88
Time Sampled: 1340
Date Extracted: 2-17-88
Date Analyzed: 3-10-88

Compound	Detection Limits mg/kg	ANALYTICAL RESULTS	
		mg/kg	
2-Chlorophenol	0.66	ND	
2-Nitrophenol	0.66	ND	
Phenol	0.66	ND	
2,4-Dimethylphenol	0.66	ND	
2,4-Dichlorophenol	0.66	ND	
2,4,6-Trichlorophenol	0.66	ND	
4-Chloro-3-methylphenol	1.3	ND	
2,4-Dinitrophenol	3.3	ND	
2,6-Dichlorophenol	--*	ND	
2-Methyl-4,6-Dinitrophenol	3.3	ND	
Pentachlorophenol	3.3	ND	
4-Nitrophenol	3.3	ND	
Benzoic Acid	3.3	ND	
2-Methylphenol	0.66	ND	
3- & 4-Methylphenol	0.66	ND	
2,3,4,6-Tetrachlorophenol	--*	ND	
2,4,5-Trichlorophenol	0.66	ND	


Analyst


Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil

page 1 of 3

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Oolk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880296
Sample No.: UF1 B-12 SS1, 1.0'
Date Sampled: 2-9-88
Time Sampled: 1400
Date Extracted: 2-17-88
Date Analyzed: 3-10-88

Compound	Detection Limits mg/kg	ANALYTICAL RESULTS	
		mg/kg	
1,3-Dichlorobenzene	0.66	ND	
1,4-Dichlorobenzene	0.66	ND	
Hexachloroethane	0.66	ND	
Bis(2-chloroethyl)ether	0.66	ND	
1,2-Dichlorobenzene	0.66	ND	
N-Nitrosodimethylamine	2.5	ND	
Bis(2-chloroisopropyl)ether	0.66	ND	
N-Nitrosodi-n-propyl amine	0.66	ND	
Hexachlorobutadiene	0.66	ND	
1,2,4-Trichlorobenzene	0.66	ND	
Nitrobenzene	0.66	ND	
Isophorone	0.66	ND	
Naphthalene	0.66	ND	
Bis(2-chloroethoxy)methane	0.66	ND	
2-Chloronaphthalene	0.66	ND	
Hexachlorocyclopentadiene	0.66	ND	
Acenaphthylene	0.66	ND	
Acenaphthene	0.66	ND	
Dimethyl phthalate	0.66	ND	
2,6-Dinitrotoluene	0.66	ND	
Fluorene	0.66	ND	
2,4-Dinitrotoluene	0.66	ND	
Diethyl phthalate	0.66	ND	
N-Nitrosodiphenylamine	0.66	ND	
Hexachlorobenzene	0.66	ND	

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 3

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880296
Sample No.: UF1 B-12 SS1, 1.0'
Date Sampled: 2-9-88
Time Sampled: 1400
Date Extracted: 2-17-88
Date Analyzed: 3-10-88

Compound	Detection Limit mg/kg	ANALYTICAL RESULTS	
		mg/kg	
Phenanthrene	0.66	ND	
Anthracene	0.66	ND	
Dibutyl phthalate	0.66	ND	
Fluoranthene	0.66	ND	
4-Chlorophenyl phenyl ether	0.66	ND	
Pyrene	0.66	ND	
Butyl Benzyl phthalate	0.66	ND	
Bis(2-ethylhexyl) phthalate	0.66	ND	
Chrysene	0.66	ND	
4-Bromophenyl phenyl ether	0.66	ND	
Benzo(a)anthracene	0.66	ND	
Di-n-octylphthalate	0.66	ND	
Benzo(b)fluoranthene	0.66	ND	
Benzo(k)fluoranthene	0.66	ND	
Benzidine	6.0	ND	
3,3'-Dichlorobenzidine	1.3	ND	
Benzo(a)pyrene	0.66	ND	
Indeno(1,2,3-cd)pyrene	0.66	ND	
Dibenzo(a,h)anthracene	0.66	ND	
Benzo(ghi)perylene	0.66	ND	
Benzyl Alcohol	1.3	ND	

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

For: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880296
Sample No.: VF1 B-12 SS1, 1.0'
Date Sampled: 2-9-88
Time Sampled: 1400
Date Extracted: 2-17-88
Date Analyzed: 3-10-88

Compound	Detection Limits	Analytical Results
	mg/kg	mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	1.3	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	0.66	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a-,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	0.66	ND
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	3.3	ND
3-Nitroaniline	3.3	ND
4-Nitroaniline	3.3	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SW 8270
Matrix: Soil

page 4 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN:Mr. Jim Duncan

Lab Number: 880296
Sample No.: UF1 B-12 SS1, 1.0'
Date Sampled: 2-9-88
Time Sampled: 1400
Date Extracted: 2-17-88
Date Analyzed: 3-10-88

Compound	Detection Limits mg/kg	ANALYTICAL RESULTS	
		mg/kg	
Alpha-BHC	--*	ND	
Gamma-BHC	—*	ND	
Beta-BHC	0.4	ND	
Heptachlor	0.2	ND	
Delta-BHC	0.3	ND	
Aldrin	0.2	ND	
Heptachlor epoxide	0.2	ND	
Endosulfan I	--*	ND	
Dieldrin	0.3	ND	
4,4'-DDE	0.6	ND	
Endrin	--*	ND	
Endosulfan II	--*	ND	
4,4'-DDD	0.3	ND	
4,4'-DDT	0.5	ND	
Endosulfan Sulfate	0.6	ND	
Endrin aldehyde	--*	ND	
Endrin Ketone	--*	ND	
Chlordane	4.0	ND	
Methoxychlor	--*	ND	
Toxaphene	4.0	ND	
Aroclor-1016	4.0	ND	
Aroclor-1221	4.0	ND	
Aroclor-1232	4.0	ND	
Aroclor-1242	4.0	ND	
Aroclor-1248	4.0	ND	
Aroclor-1254	4.0	ND	
Aroclor-1260	4.0	ND	

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SW 8270
Matrix: Soil

page 5 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

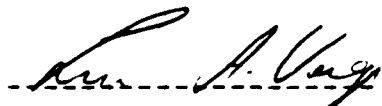
P.O. No.:
Job No.: AT077

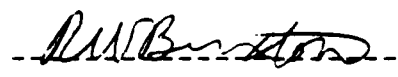
FOR: ES: Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880296
Sample No.: UF1 B-12 SS1, 1.0'
Date Sampled: 2-9-88
Time Sampled: 1400
Date Extracted: 2-17-88
Date Analyzed: 3-10-88

Compound	Detection Limits	ANALYTICAL RESULTS
	mg/kg	mg/kg
2-Chlorophenol	0.66	ND
2-Nitrophenol	0.66	ND
Phenol	0.66	ND
2,4-Dimethylphenol	0.66	ND
2,4-Dichlorophenol	0.66	ND
2,4,6-Trichlorophenol	0.66	ND
4-Chloro-3-methylphenol	1.3	ND
2,4-Dinitrophenol	3.3	ND
2,6-Dichlorophenol	--*	ND
2-Methyl-4,6-Dinitrophenol	3.3	ND
Pentachlorophenol	3.3	ND
4-Nitrophenol	3.3	ND
Benzoic Acid	3.3	ND
2-Methylphenol	0.66	ND
3- & 4-Methylphenol	0.66	ND
2,3,4,6-Tetrachlorophenol	--*	ND
2,4,5-Trichlorophenol	0.66	ND


Analyst


Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 9270
Matrix: Soil

page 1 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Oolk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880297
Sample No.: UF1 B-12 SS2, 3.5'
Date Sampled: 2-9-88
Time Sampled: 1500
Date Extracted: 2-17-88
Date Analyzed: 3-10-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
1,3-Dichlorobenzene	0.66	ND
1,4-Dichlorobenzene	0.66	ND
Hexachloroethane	0.66	ND
Bis(2-chloroethyl)ether	0.66	ND
1,2-Dichlorobenzene	0.66	ND
N-Nitrosodimethylamine	2.5	ND
Bis(2-chloroisopropyl)ether	0.66	ND
N-Nitrosodi-n-propyl amine	0.66	ND
Hexachlorobutadiene	0.66	ND
1,2,4-Trichlorobenzene	0.66	ND
Nitrobenzene	0.66	ND
Isophorone	0.66	ND
Naphthalene	0.66	ND
Bis(2-chloroethoxy)methane	0.66	ND
2-Chloronaphthalene	0.66	ND
Hexachlorocyclopentadiene	0.66	ND
Acenaphthylene	0.66	ND
Acenaphthene	0.66	ND
Dimethyl phthalate	0.66	ND
2,6-Dinitrotoluene	0.66	ND
Fluorene	0.66	ND
2,4-Dinitrotoluene	0.66	ND
Diethyl phthalate	0.66	ND
N-Nitrosodiphenylamine	0.66	ND
Hexachlorobenzene	0.66	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Dolk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 380297
Sample No.: QF1 B-12 SS2, 3.5'
Date Sampled: 2-9-88
Time Sampled: 1500
Date Extracted: 2-17-88
Date Analyzed: 3-10-88

Compound	Detection Limit mg/kg	ANALYTICAL RESULTS
		mg/kg
Phenanthrene	0.66	ND
Anthracene	0.66	ND
Dibutyl phthalate	0.66	ND
Fluoranthene	0.66	ND
4-Chlorophenyl phenyl ether	0.66	ND
Pyrene	0.66	ND
Butyl Benzyl phthalate	0.66	ND
Bis(2-ethylhexyl) phthalate	0.66	ND
Chrysene	0.66	ND
4-Bromophenyl phenyl ether	0.66	ND
Benzo(a)anthracene	0.66	ND
Di-n-octylphthalate	0.66	ND
Benzo(b)fluoranthene	0.66	ND
Benzo(k)fluoranthene	0.66	ND
Benzidine	6.0	ND
3,3'-Dichlorobenzidine	1.3	ND
Benzo(a)pyrene	0.66	ND
Indeno(1,2,3-cd)pyrene	0.66	ND
Dibenzo(a,h)anthracene	0.66	ND
Benzo(ghi)perylene	0.66	ND
Benzyl Alcohol	1.3	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

For: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 980297
Sample No.: UF1 B-12 SS2, 3.5'
Date Sampled: 2-9-88
Time Sampled: 1500
Date Extracted: 2-17-88
Date Analyzed: 3-10-88

Compound	Detection	Analytical Results
	Limits mg/kg	mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	1.3	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	0.66	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a-,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	0.66	ND
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	3.3	ND
3-Nitroaniline	3.3	ND
4-Nitroaniline	3.3	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SW 8270
Matrix: Soil

page 4 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN:Mr. Jim Duncan

Lab Number: 880297
Sample No.: UF1 B-12 SS2, 3.5'
Date Sampled: 2-9-88
Time Sampled: 1500
Date Extracted: 2-17-88
Date Analyzed: 3-10-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
Alpha-BHC	--*	ND
Gamma-BHC	---	ND
Beta-BHC	0.4	ND
Heptachlor	0.2	ND
Delta-BHC	0.3	ND
Aldrin	0.2	ND
Heptachlor epoxide	0.2	ND
Endosulfan I	--*	ND
Dieldrin	0.3	ND
4,4'-DDE	0.6	ND
Endrin	--*	ND
Endosulfan II	--*	ND
4,4'-DDD	0.3	ND
4,4'-DDT	0.5	ND
Endosulfan Sulfate	0.6	ND
Endrin aldehyde	--*	ND
Endrin Ketone	--*	ND
Chlordane	4.0	ND
Methoxychlor	--*	ND
Toxaphene	4.0	ND
Aroclor-1016	4.0	ND
Aroclor-1221	4.0	ND
Aroclor-1232	4.0	ND
Aroclor-1242	4.0	ND
Aroclor-1248	4.0	ND
Aroclor-1254	4.0	ND
Aroclor-1260	4.0	ND

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SW 8270
Matrix: Soil

page 5 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

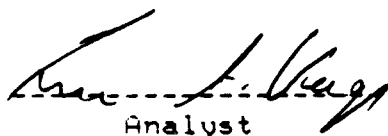
P.O. No.:
Job No.: AT077

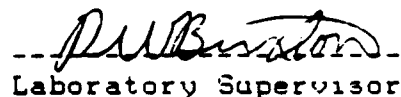
FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880297
Sample No.: UF1 B-12 SS2, 3.5'
Date Sampled: 2-9-88
Time Sampled: 1500
Date Extracted: 2-17-88
Date Analyzed: 3-10-88

Compound	Detection	ANALYTICAL RESULTS	
	Limits mg/kg	mg/kg	
2-Chlorophenol	0.66	ND	
2-Nitrophenol	0.66	ND	
Phenol	0.66	ND	
2,4-Dimethylphenol	0.66	ND	
2,4-Dichlorophenol	0.66	ND	
2,4,6-Trichlorophenol	0.66	ND	
4-Chloro-3-methylphenol	1.3	ND	
2,4-Dinitrophenol	3.3	ND	
2,6-Dichlorophenol	--*	ND	
2-Methyl-4,6-Dinitrophenol	3.3	ND	
Pentachlorophenol	3.3	ND	
4-Nitrophenol	3.3	ND	
Benzoic Acid	3.3	ND	
2-Methylphenol	0.66	ND	
3- & 4-Methylphenol	0.66	ND	
2,3,4,6-Tetrachlorophenol	--*	ND	
2,4,5-Trichlorophenol	0.66	ND	


Analyst


Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil

page 1 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880298
Sample No.: UF1 B-12 SS3, 8.5'
Date Sampled: 2-9-88
Time Sampled: 1540
Date Extracted: 2-17-88
Date Analyzed: 3-10-88

Compound	Detection	ANALYTICAL RESULTS	
	Limits mg/kg	mg/kg	
1,3-Dichlorobenzene	0.66	ND	
1,4-Dichlorobenzene	0.66	ND	
Hexachloroethane	0.66	ND	
Bis(2-chloroethyl)ether	0.66	ND	
1,2-Dichlorobenzene	0.66	ND	
N-Nitrosodimethylamine	2.5	ND	
Bis(2-chloroisopropyl)ether	0.66	ND	
N-Nitrosodi-n-propyl amine	0.66	ND	
Hexachlorobutadiene	0.66	ND	
1,2,4-Trichlorobenzene	0.66	ND	
Nitrobenzene	0.66	ND	
Isophorone	0.66	ND	
Naphthalene	0.66	ND	
Bis(2-chloroethoxy)methane	0.66	ND	
2-Chloronaphthalene	0.66	ND	
Hexachlorocyclopentadiene	0.66	ND	
Acenaphthylene	0.66	ND	
Acenaphthene	0.66	ND	
Dimethyl phthalate	0.66	ND	
2,6-Dinitrotoluene	0.66	ND	
Fluorene	0.66	ND	
2,4-Dinitrotoluene	0.66	ND	
Diethyl phthalate	0.66	ND	
N-Nitrosodiphenylamine	0.66	ND	
Hexachlorobenzene	0.66	ND	

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Dolk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number 880298
Sample No.: UF1 B-12 SS3, 8.5'
Date Sampled: 2-9-88
Time Sampled: 1540
Date Extracted: 2-17-88
Date Analyzed: 3-10-88

Compound	Detection	ANALYTICAL RESULTS	
	Limit mg/kg	mg/kg	
Phenanthrene	0.66	ND	
Anthracene	0.66	ND	
Dibutyl phthalate	0.66	ND	
Fluoranthene	0.66	ND	
4-Chlorophenyl phenyl ether	0.66	ND	
Pyrene	0.66	ND	
Butyl Benzyl phthalate	0.66	ND	
Bis(2-ethylhexyl) phthalate	0.66	ND	
Chrysene	0.66	ND	
4-Bromophenyl phenyl ether	0.66	ND	
Benzo(a)anthracene	0.66	ND	
Di-n-octylphthalate	0.66	ND	
Benzo(b)fluoranthene	0.66	ND	
Benzo(k)fluoranthene	0.66	ND	
Benzidine	6.0	ND	
3,3'-Dichlorobenzidine	1.3	ND	
Benzo(a)pyrene	0.66	ND	
Indeno(1,2,3-cd)pyrene	0.66	ND	
Dibenzo(a,h)anthracene	0.66	ND	
Benzo(ghi)perylene	0.66	ND	
Benzyl Alcohol	1.3	ND	

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

For: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880298
Sample No.: UF1 B-12 SS3, 8.5'
Date Sampled: 2-9-88
Time Sampled: 1540
Date Extracted: 2-17-88
Date Analyzed: 3-10-88

Compound	Detection Limits mg/kg	Analytical Results
		mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	1.3	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	0.66	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a-,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	0.66	ND
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	3.3	ND
3-Nitroaniline	3.3	ND
4-Nitroaniline	3.3	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SW 8270
Matrix: Soil

page 4 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880298
Sample No.: UF1 D-12 SS3, 8.5'
Date Sampled: 2-9-88
Time Sampled: 1540
Date Extracted: 2-17-88
Date Analyzed: 3-10-88

Compound	Detection	ANALYTICAL RESULTS	
	Limits	mg/kg	
	mg/kg		
Alpha-BHC	--*	ND	
Gamma-BHC	—*	ND	
Beta-BHC	0.4	ND	
Heptachlor	0.2	ND	
Delta-BHC	0.3	ND	
Aldrin	0.2	ND	
Heptachlor epoxide	0.2	ND	
Endosulfan I	--*	ND	
Dieldrin	0.3	ND	
4,4'-DDE	0.6	ND	
Endrin	--*	ND	
Endosulfan II	--*	ND	
4,4'-DDD	0.3	ND	
4,4'-DDT	0.5	ND	
Endosulfan Sulfate	0.6	ND	
Endrin aldehyde	--*	ND	
Endrin Ketone	--*	ND	
Chlordane	4.0	ND	
Methoxychlor	--*	ND	
Toxaphene	4.0	ND	
Aroclor-1016	4.0	ND	
Aroclor-1221	4.0	ND	
Aroclor-1232	4.0	ND	
Aroclor-1242	4.0	ND	
Aroclor-1248	4.0	ND	
Aroclor-1254	4.0	ND	
Aroclor-1260	4.0	ND	

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SW 3270
Matrix: Soil

page 5 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880298
Sample No.: UF1 B-12 SS3, 9.5'
Date Sampled: 2-9-88
Time Sampled: 1540
Date Extracted: 2-17-88
Date Analyzed: 3-10-88

Compound	Detection Limits mg/kg	ANALYTICAL RESULTS	
		mg/kg	
2-Chlorophenol	0.66	ND	
2-Nitrophenol	0.66	ND	
Phenol	0.66	ND	
2,4-Dimethylphenol	0.66	ND	
2,4-Dichlorophenol	0.66	ND	
2,4,6-Trichlorophenol	0.66	ND	
4-Chloro-3-methylphenol	1.3	ND	
2,4-Dinitrophenol	3.3	ND	
2,6-Dichlorophenol	--*	ND	
2-Methyl-4,6-Dinitrophenol	3.3	ND	
Pentachlorophenol	3.3	ND	
4-Nitrophenol	3.3	ND	
Benzoic Acid	3.3	ND	
2-Methylphenol	0.66	ND	
3- & 4-Methylphenol	0.66	ND	
2,3,4,6-Tetrachlorophenol	--*	ND	
2,4,5-Trichlorophenol	0.66	ND	


Analyst


Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil

page 1 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880299
Sample No.: VF1 B-13 SS1, 1.5'
Date Sampled: 2-9-88
Time Sampled: 1600
Date Extracted: 2-17-88
Date Analyzed: 3-11-88

Compound	Detection Limits	ANALYTICAL RESULTS
	mg/kg	mg/kg
1,3-Dichlorobenzene	0.66	ND
1,4-Dichlorobenzene	0.66	ND
Hexachloroethane	0.66	ND
Bis(2-chloroethyl)ether	0.66	ND
1,2-Dichlorobenzene	0.66	ND
N-Nitrosodimethylamine	2.5	ND
Bis(2-chloroisopropyl)ether	0.66	ND
N-Nitrosodi-n-propyl amine	0.66	ND
Hexachlorobutadiene	0.66	ND
1,2,4-Trichlorobenzene	0.66	ND
Nitrobenzene	0.66	ND
Isophorone	0.66	ND
Naphthalene	0.66	ND
Bis(2-chloroethoxy)methane	0.66	ND
2-Chloronaphthalene	0.66	ND
Hexachlorocyclopentadiene	0.66	ND
Acenaphthylene	0.66	ND
Acenaphthene	0.66	ND
Dimethyl phthalate	0.66	ND
2,6-Dinitrotoluene	0.66	ND
Fluorene	0.66	ND
2,4-Dinitrotoluene	0.66	ND
Diethyl phthalate	0.66	ND
N-Nitrosodiphenylamine	0.66	ND
Hexachlorobenzene	0.66	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880299
Sample No.: UF1 B-13 SS1, 1.5'
Date Sampled: 2-9-88
Time Sampled: 1600
Date Extracted: 2-17-88
Date Analyzed: 3-11-88

Compound	Detection	ANALYTICAL RESULTS
	Limit mg/kg	mg/kg
Phenanthrene	0.66	ND
Anthracene	0.66	ND
Dibutyl phthalate	0.66	ND
Fluoranthene	0.66	ND
4-Chlorophenyl phenyl ether	0.66	ND
Pyrene	0.66	ND
Butyl Benzyl phthalate	0.66	ND
Bis(2-ethylhexyl) phthalate	0.66	ND
Chrysene	0.66	ND
4-Bromophenyl phenyl ether	0.66	ND
Benzo(a)anthracene	0.66	ND
Di-n-octylphthalate	0.66	ND
Benzo(b)fluoranthene	0.66	ND
Benzo(k)fluoranthene	0.66	ND
Benzidine	6.0	ND
3,3'-Dichlorobenzidine	1.3	ND
Benzo(a)pyrene	0.66	ND
Indeno(1,2,3-cd)pyrene	0.66	ND
Dibenzo(a,h)anthracene	0.66	ND
Benzo(ghi)perylene	0.66	ND
Benzyl Alcohol	1.3	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

For: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880299
Sample No.: 0F1 B-13 SS1, 1.5'
Date Sampled: 2-9-88
Time Sampled: 1600
Date Extracted: 2-17-88
Date Analyzed: 3-11-88

Compound	Detection Limits	Analytical Results
	mg/kg	mg/kg
Acetophenone	---	ND
Aniline	---	ND
4-Aminobiphenyl	---	ND
4-Chloroaniline	1.3	ND
1-Chloronaphthalene	---	ND
Dibenzofuran	0.66	ND
p-Dimethylaminoazobenzene	---	ND
7,12-Dimethylbenz(a)anthracene	---	ND
a-,a-Dimethylphenethylamine	---	ND
Diphenylamine	---	ND
1,2-Diphenylhydrazine	---	ND
Ethyl methanesulfonate	---	ND
3-Methylcholanthrene	---	ND
Methyl methanesulfonate	---	ND
3-Methylcholanthrene	---	ND
2-Methylnaphthalene	0.66	ND
1-Naphthylamine	---	ND
2-Naphthylamine	---	ND
2-Nitroaniline	3.3	ND
3-Nitroaniline	3.3	ND
4-Nitroaniline	3.3	ND
N-Nitroso-di-n-butylamine	---	ND
N-Nitrosopiperidine	---	ND
Pentachlorobenzene	---	ND
Pentachloronitrobenzene	---	ND
Phenacetin	---	ND
2-Picoline	---	ND
Pronamide	---	ND
1,2,4,5-Tetrachlorobenzene	---	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SW 8270
Matrix: Soil

page 4 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.
Job No. : AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN:Mr. Jim Duncan

Lab Number: 880299
Sample No.: QF1 B-13 SS1, 1.5'
Date Sampled: 2-9-88
Time Sampled: 1600
Date Extracted: 2-17-88
Date Analyzed: 3-11-88

Compound	Detection Limits	ANALYTICAL RESULTS
	mg/kg	mg/kg
Alpha-BHC	--*	ND
Gamma-BHC	---	ND
Beta-BHC	0.4	ND
Heptachlor	0.2	ND
Delta-BHC	0.3	ND
Aldrin	0.2	ND
Heptachlor epoxide	0.2	ND
Endosulfan I	--*	ND
Dieldrin	0.3	ND
4,4'-DDE	0.6	ND
Endrin	--*	ND
Endosulfan II	--*	ND
4,4'-DDD	0.3	ND
4,4'-DDT	0.5	ND
Endosulfan Sulfate	0.6	ND
Endrin aldehyde	--*	ND
Endrin Ketone	--*	ND
Chlordane	4.0	ND
Methoxychlor	--*	ND
Toxaphene	4.0	ND
Aroclor-1016	4.0	ND
Aroclor-1221	4.0	ND
Aroclor-1232	4.0	ND
Aroclor-1242	4.0	ND
Aroclor-1248	4.0	ND
Aroclor-1254	4.0	ND
Aroclor-1260	4.0	ND

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SW 8270
Matrix: Soil

page 5 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

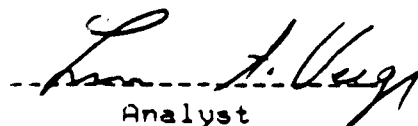
P.O. No.
Job No. : AT077

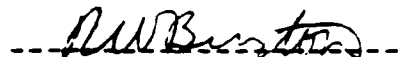
FOR: ES:Atlanta/Oolk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880299
Sample No.: UF1 B-13 SS1, 1.5'
Date Sampled: 2-9-88
Time Sampled: 1600
Date Extracted: 2-17-88
Date Analyzed: 3-11-88

Compound	Detection Limits mg/kg	ANALYTICAL RESULTS
		mg/kg
2-Chlorophenol	0.66	ND
2-Nitrophenol	0.66	ND
Phenol	0.66	ND
2,4-Dimethylphenol	0.66	ND
2,4-Dichlorophenol	0.66	ND
2,4,6-Trichlorophenol	0.66	ND
4-Chloro-3-methylphenol	1.3	ND
2,4-Dinitrophenol	3.3	ND
2,6-Dichlorophenol	--*	ND
2-Methyl-4,6-Dinitrophenol	3.3	ND
Pentachlorophenol	3.3	ND
4-Nitrophenol	3.3	ND
Benzoic Acid	3.3	ND
2-Methylphenol	0.66	ND
3- & 4-Methylphenol	0.66	ND
2,3,4,6-Tetrachlorophenol	--*	ND
2,4,5-Trichlorophenol	0.66	ND


Analyst


Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil

page 1 of 5

Date Received: February 11, 1988
Date Reported: March 25, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880375
Sample No.: UF1 B-13 SS2, 3.5'
Date Sampled: 2-10-88
Time Sampled: 1000
Date Extracted: 2-21-88
Date Analyzed: 3-15-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
1,3-Dichlorobenzene	0.66	ND
1,4-Dichlorobenzene	0.66	ND
Hexachloroethane	0.66	ND
Bis(2-chloroethyl)ether	0.66	ND
1,2-Dichlorobenzene	0.66	ND
N-Nitrosodimethylamine	2.5	ND
Bis(2-chloroisopropyl)ether	0.66	ND
N-Nitrosodi-n-propyl amine	0.66	ND
Hexachlorobutadiene	0.66	ND
1,2,4-Trichlorobenzene	0.66	ND
Nitrobenzene	0.66	ND
Isophorone	0.66	ND
Naphthalene	0.66	ND
Bis(2-chloroethoxy)methane	0.66	ND
2-Chloronaphthalene	0.66	ND
Hexachlorocyclopentadiene	0.66	ND
Acenaphthylene	0.66	ND
Acenaphthene	0.66	ND
Dimethyl phthalate	0.66	ND
2,6-Dinitrotoluene	0.66	ND
Fluorene	0.66	ND
2,4-Dinitrotoluene	0.66	ND
Diethyl phthalate	0.66	ND
N-Nitrosodiphenylamine	0.66	ND
Hexachlorobenzene	0.66	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 5

Date Received: February 11, 1988
Date Reported: March 25, 1988

P.O. No.:
Job No.: 9T077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880375
Sample No.: UF1 B-13 SS2, 3.5'
Date Sampled: 2-10-88
Time Sampled: 1000
Date Extracted: 2-21-88
Date Analyzed: 3-15-88

Compound	Detection Limit mg/kg	ANALYTICAL RESULTS
		mg/kg
Phenanthrene	0.66	ND
Anthracene	0.66	ND
Dibutyl phthalate	0.66	ND
Fluoranthene	0.66	ND
4-Chlorophenyl phenyl ether	0.66	ND
Pyrene	0.66	ND
Butyl Benzyl phthalate	0.66	ND
Bis(2-ethylhexyl) phthalate	0.66	ND
Chrysene	0.66	ND
4-Bromophenyl phenyl ether	0.66	ND
Benzo(a)anthracene	0.66	ND
Di-n-octylphthalate	0.66	ND
Benzo(b)fluoranthene	0.66	ND
Benzo(k)fluoranthene	0.66	ND
Benzidine	6.0	ND
3,3'-Dichlorobenzidine	1.3	ND
Benzo(a)pyrene	0.66	ND
Indeno(1,2,3-cd)pyrene	0.66	ND
Dibenzo(a,h)anthracene	0.66	ND
Benzo(ghi)perylene	0.66	ND
Benzyl Alcohol	1.3	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: February 11, 1988
Date Reported: March 25, 1988

P.O. No.:
Job No.: AT077

For: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880375
Sample No.: UF1 B-13 SS2, 3.5'
Date Sampled: 2-10-88
Time Sampled: 1000
Date Extracted: 2-21-88
Date Analyzed: 3-15-88

Compound	Detection Limits mg/kg	Analytical Results mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	1.3	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	0.66	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a-,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	0.66	ND
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	3.3	ND
3-Nitroaniline	3.3	ND
4-Nitroaniline	3.3	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SW 8270
Matrix: Soil

page 4 of 5

Date Received: February 11, 1988
Date Reported: March 25, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN:Mr. Jim Duncan

Lab Number: 880375
Sample No.: UF1 B-13 SS2, 3.5'
Date Sampled: 2-10-88
Time Sampled: 1000
Date Extracted: 2-21-88
Date Analyzed: 3-15-88

Compound	Detection Limits mg/kg	ANALYTICAL RESULTS
		mg/kg
Alpha-BHC	--*	ND
Gamma-BHC	---	ND
Beta-BHC	0.4	ND
Heptachlor	0.2	ND
Delta-BHC	0.3	ND
Aldrin	0.2	ND
Heptachlor epoxide	0.2	ND
Endosulfan I	--*	ND
Dieldrin	0.3	ND
4,4'-DDE	0.6	ND
Endrin	--*	ND
Endosulfan II	--*	ND
4,4'-DDD	0.3	ND
4,4'-DDT	0.5	ND
Endosulfan Sulfate	0.6	ND
Endrin aldehyde	--*	ND
Endrin Ketone	--*	ND
Chlordane	4.0	ND
Methoxychlor	--*	ND
Toxaphene	4.0	ND
Aroclor-1016	4.0	ND
Aroclor-1221	4.0	ND
Aroclor-1232	4.0	ND
Aroclor-1242	4.0	ND
Aroclor-1248	4.0	ND
Aroclor-1254	4.0	ND
Aroclor-1260	4.0	ND

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SW 8270
Matrix: Soil

page 5 of 5

Date Received: February 11, 1988
Date Reported: March 25, 1988

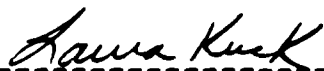
P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880375
Sample No.: UF1 B-13 SS2, 3.5'
Date Sampled: 2-10-88
Time Sampled: 1000
Date Extracted: 2-21-88
Date Analyzed: 3-15-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
2-Chlorophenol	0.66	ND
2-Nitrophenol	0.66	ND
Phenol	0.66	ND
2,4-Dimethylphenol	0.66	ND
2,4-Dichlorophenol	0.66	ND
2,4,6-Trichlorophenol	0.66	ND
4-Chloro-3-methylphenol	1.3	ND
2,4-Dinitrophenol	3.3	ND
2,6-Dichlorophenol	--*	ND
2-Methyl-4,6-Dinitrophenol	3.3	ND
Pentachlorophenol	3.3	ND
4-Nitrophenol	3.3	ND
Benzoic Acid	3.3	ND
2-Methylphenol	0.66	ND
3- & 4-Methylphenol	0.66	ND
2,3,4,6-Tetrachlorophenol	--*	ND
2,4,5-Trichlorophenol	0.66	ND


Analyst


Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil

page 1 of 5

Date Received: February 11, 1988
Date Reported: March 25, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880376
Sample No.: UF1 B-13 SS3, 8.5'
Date Sampled: 2-10-88
Time Sampled: 1015
Date Extracted: 2-21-88
Date Analyzed: 3-15-88

Compound	Detection	ANALYTICAL RESULTS	
	Limits mg/kg	mg/kg	
1,3-Dichlorobenzene	0.66	ND	
1,4-Dichlorobenzene	0.66	ND	
Hexachloroethane	0.66	ND	
Bis(2-chloroethyl)ether	0.66	ND	
1,2-Dichlorobenzene	0.66	ND	
N-Nitrosodimethylamine	2.5	ND	
Bis(2-chloroisopropyl)ether	0.66	ND	
N-Nitrosodi-n-propyl amine	0.66	ND	
Hexachlorobutadiene	0.66	ND	
1,2,4-Trichlorobenzene	0.66	ND	
Nitrobenzene	0.66	ND	
Isophorone	0.66	ND	
Naphthalene	0.66	ND	
Bis(2-chloroethoxy)methane	0.66	ND	
2-Chloronaphthalene	0.66	ND	
Hexachlorocyclopentadiene	0.66	ND	
Acenaphthylene	0.66	ND	
Acenaphthene	0.66	ND	
Dimethyl phthalate	0.66	ND	
2,6-Dinitrotoluene	0.66	ND	
Fluorene	0.66	ND	
2,4-Dinitrotoluene	0.66	ND	
Diethyl phthalate	0.66	ND	
N-Nitrosodiphenylamine	0.66	ND	
Hexachlorobenzene	0.66	ND	

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 5

Date Received: February 11, 1988
Date Reported: March 25, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880376
Sample No.: UF1 B-13 SS3, 8.5'
Date Sampled: 2-10-88
Time Sampled: 1015
Date Extracted: 2-21-88
Date Analyzed: 3-15-88

Compound	Detection Limit mg/kg	ANALYTICAL RESULTS	
		mg/kg	
Phenanthrene	0.66	ND	
Anthracene	0.66	ND	
Dibutyl phthalate	0.66	ND	
Fluoranthene	0.66	ND	
4-Chlorophenyl phenyl ether	0.66	ND	
Pyrene	0.66	ND	
Butyl Benzyl phthalate	0.66	ND	
Bis(2-ethylhexyl) phthalate	0.66	ND	
Chrysene	0.66	ND	
4-Bromophenyl phenyl ether	0.66	ND	
Benzo(a)anthracene	0.66	ND	
Di-n-octylphthalate	0.66	ND	
Benzo(b)fluoranthene	0.66	ND	
Benzo(k)fluoranthene	0.66	ND	
Benzidine	6.0	ND	
3,3'-Dichlorobenzidine	1.3	ND	
Benzo(a)pyrene	0.66	ND	
Indeno(1,2,3-cd)pyrene	0.66	ND	
Dibenzo(a,h)anthracene	0.66	ND	
Benzo(ghi)perylene	0.66	ND	
Benzyl Alcohol	1.3	ND	

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: February 11, 1988
Date Reported: March 25, 1988

P.O. No.:
Job No.: AT077

For: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880376
Sample No.: UF1 B-13 SS3, 8.5'
Date Sampled: 2-10-88
Time Sampled: 1015
Date Extracted: 2-21-88
Date Analyzed: 3-15-88

Compound	Detection Limits	Analytical Results
	mg/kg	mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	1.3	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	0.66	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a-,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	0.66	ND
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	3.3	ND
3-Nitroaniline	3.3	ND
4-Nitroaniline	3.3	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SW 8270
Matrix: Soil

page 4 of 5

Date Received: February 11, 1988
Date Reported: March 25, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880376
Sample No.: UF1 B-13 SS3, 8.5'
Date Sampled: 2-10-88
Time Sampled: 1015
Date Extracted: 2-21-88
Date Analyzed: 3-15-88

Compound	Detection	ANALYTICAL RESULTS
	Limits	
	mg/kg	mg/kg
Alpha-BHC	--*	ND
Gamma-BHC	—*	ND
Beta-BHC	0.4	ND
Heptachlor	0.2	ND
Delta-BHC	0.3	ND
Aldrin	0.2	ND
Heptachlor epoxide	0.2	ND
Endosulfan I	--*	ND
Dieldrin	0.3	ND
4,4'-DDE	0.6	ND
Endrin	--*	ND
Endosulfan II	--*	ND
4,4'-DDD	0.3	ND
4,4'-DDT	0.5	ND
Endosulfan Sulfate	0.6	ND
Endrin aldehyde	--*	ND
Endrin Ketone	--*	ND
Chlordane	4.0	ND
Methoxychlor	--*	ND
Toxaphene	4.0	ND
Aroclor-1016	4.0	ND
Aroclor-1221	4.0	ND
Aroclor-1232	4.0	ND
Aroclor-1242	4.0	ND
Aroclor-1248	4.0	ND
Aroclor-1254	4.0	ND
Aroclor-1260	4.0	ND

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SW 8270
Matrix: Soil

page 5 of 5

Date Received: February 11, 1988
Date Reported: March 25, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880376
Sample No.: UF1 B-13 SS3, 8.5'
Date Sampled: 2-10-88
Time Sampled: 1015
Date Extracted: 2-21-88
Date Analyzed: 3-15-88

Compound	Detection Limits	ANALYTICAL RESULTS
	mg/kg	mg/kg
2-Chlorophenol	0.66	ND
2-Nitrophenol	0.66	ND
Phenol	0.66	ND
2,4-Dimethylphenol	0.66	ND
2,4-Dichlorophenol	0.66	ND
2,4,6-Trichlorophenol	0.66	ND
4-Chloro-3-methylphenol	1.3	ND
2,4-Dinitrophenol	3.3	ND
2,6-Dichlorophenol	--*	ND
2-Methyl-4,6-Dinitrophenol	3.3	ND
Pentachlorophenol	3.3	ND
4-Nitrophenol	3.3	ND
Benzoic Acid	3.3	ND
2-Methylphenol	0.66	ND
3- & 4-Methylphenol	0.66	ND
2,3,4,6-Tetrachlorophenol	--*	ND
2,4,5-Trichlorophenol	0.66	ND

Laura Kuek

Analyst

RWB

Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil

page 1 of 5

Date Received: February 11, 1988
Date Reported: March 25, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880377
Sample No.: UF1 B-14 SS1, 1.0'
Date Sampled: 2-10-88
Time Sampled: 1100
Date Extracted: 2-21-88
Date Analyzed: 3-15-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
1,3-Dichlorobenzene	0.66	ND
1,4-Dichlorobenzene	0.66	ND
Hexachloroethane	0.66	ND
Bis(2-chloroethyl)ether	0.66	ND
1,2-Dichlorobenzene	0.66	ND
N-Nitrosodimethylamine	2.5	ND
Bis(2-chloroisopropyl)ether	0.66	ND
N-Nitrosodi-n-propyl amine	0.66	ND
Hexachlorobutadiene	0.66	ND
1,2,4-Trichlorobenzene	0.66	ND
Nitrobenzene	0.66	ND
Isophorone	0.66	ND
Naphthalene	0.66	ND
Bis(2-chloroethoxy)methane	0.66	ND
2-Chloronaphthalene	0.66	ND
Hexachlorocyclopentadiene	0.66	ND
Acenaphthylene	0.66	ND
Acenaphthene	0.66	ND
Dimethyl phthalate	0.66	ND
2,6-Dinitrotoluene	0.66	ND
Fluorene	0.66	ND
2,4-Dinitrotoluene	0.66	ND
Diethyl phthalate	0.66	ND
N-Nitrosodiphenylamine	0.66	ND
Hexachlorobenzene	0.66	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 5

Date Received: February 11, 1988
Date Reported: March 25, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880377
Sample No.: UF1 B-14 SS1, 1.0'
Date Sampled: 2-10-88
Time Sampled: 1100
Date Extracted: 2-21-88
Date Analyzed: 3-15-88

Compound	Detection	ANALYTICAL RESULTS	
	Limit mg/kg	mg/kg	
Phenanthrene	0.66	ND	
Anthracene	0.66	ND	
Dibutyl phthalate	0.66	ND	
Fluoranthene	0.66	ND	
4-Chlorophenyl phenyl ether	0.66	ND	
Pyrene	0.66	ND	
Butyl Benzyl phthalate	0.66	ND	
Bis(2-ethylhexyl) phthalate	0.66	ND	
Chrysene	0.66	ND	
4-Bromophenyl phenyl ether	0.66	ND	
Benzo(a)anthracene	0.66	ND	
Di-n-octylphthalate	0.66	ND	
Benzo(b)fluoranthene	0.66	ND	
Benzo(k)fluoranthene	0.66	ND	
Benzidine	6.0	ND	
3,3'-Dichlorobenzidine	1.3	ND	
Benzo(a)pyrene	0.66	ND	
Indeno(1,2,3-cd)pyrene	0.66	ND	
Dibenzo(a,h)anthracene	0.66	ND	
Benzo(ghi)perylene	0.66	ND	
Benzyl Alcohol	1.3	ND	

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: February 11, 1988
Date Reported: March 25, 1988

P.O. No.:
Job No.: AT077

For: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880377
Sample No.: UF1 B-14 SS1, 1.0'
Date Sampled: 2-10-88
Time Sampled: 1100
Date Extracted: 2-21-88
Date Analyzed: 3-15-88

Compound	Detection Limits mg/kg	Analytical Results mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	1.3	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	0.66	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a-,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	0.66	ND
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	3.3	ND
3-Nitroaniline	3.3	ND
4-Nitroaniline	3.3	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SW 8270
Matrix: Soil

page 4 of 5

Date Received: February 11, 1988
Date Reported: March 25, 1988

P.O. No.:
Job No.: AT077

FOR: ES Atlanta/Volk ANG
Address: 97 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880377
Sample No: UF1 B-14 SS1, 1.0'
Date Sampled: 2-10-88
Time Sampled: 1100
Date Extracted: 2-21-88
Date Analyzed: 3-15-88

Compound	Detection	ANALYTICAL RESULTS	
	Limits	mg/kg	
	mg/kg		
Alpha-BHC	--*		ND
Beta-BHC	--*		ND
Beta-BHC	0.4		ND
Heptachlor	0.2		ND
Delta-BHC	0.3		ND
Aldrin	0.2		ND
Heptachlor epoxide	0.2		ND
Endosulfan I	--*		ND
Dieldrin	0.3		ND
4,4'-DDE	0.6		ND
Endrin	--*		ND
Endosulfan II	--*		ND
4,4'-DDD	0.3		ND
4,4'-DDT	0.5		ND
Endosulfan Sulfate	0.6		ND
Endrin aldehyde	--*		ND
Endrin Ketone	--*		ND
Chlordane	4.0		ND
Methoxychlor	--*		ND
Toxaphene	4.0		ND
Procclor-1016	4.0		ND
Procclor-1221	4.0		ND
Procclor-1232	4.0		ND
Procclor-1242	4.0		ND
Procclor-1248	4.0		ND
Procclor-1254	4.0		ND
Procclor-1260	4.0		ND

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SW 8270
Matrix: Soil

page 5 of 5

Date Received: February 11, 1988
Date Reported: March 25, 1988


P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880377
Sample No.: UF1 B-14 SS1, 1.0'
Date Sampled: 2-10-88
Time Sampled: 1100
Date Extracted: 2-21-88
Date Analyzed: 3-15-88

Compound	Detection	ANALYTICAL RESULTS	
	Limits		
	mg/kg		mg/kg
2-Chlorophenol	0.66		ND
2-Nitrophenol	0.66		ND
Phenol	0.66		ND
2,4-Dimethylphenol	0.66		ND
2,4-Dichlorophenol	0.66		ND
2,4,6-Trichlorophenol	0.66		ND
4-Chloro-3-methylphenol	1.3		ND
2,4-Dinitrophenol	3.3		ND
2,6-Dichlorophenol	--*		ND
2-Methyl-4,6-Dinitrophenol	3.3		ND
Pentachlorophenol	3.3		ND
4-Nitrophenol	3.3		ND
Benzoic Acid	3.3		ND
2-Methylphenol	0.66		ND
3- & 4-Methylphenol	0.66		ND
2,3,4,6-Tetrachlorophenol	--*		ND
2,4,5-Trichlorophenol	0.66		ND


Analyst


Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

CASE NARRATIVE
QUALITY CONTROL RESULTS SUMMARY
SAMPLE NO(S).: 88030531 & 88020377

Surrogate recoveries for sample 88030531 included two from the acid fraction that were outside of CLP QC limits. Matrix spike analyses were performed on this sample. Surrogate recoveries for the matrix spike and MSD showed a similar pattern. According to CLP protocol, this is sufficient to show a matrix effect.

Acid surrogate spike recoveries for sample 88020377 were below CLP QC limits. There was insufficient sample remaining to re-extract the sample.

Environmental Sciences
Priority, Pollution and
Resource Management
Atlanta, Georgia

Page 1 of 2

Date Received February 11, 1986
Date Reported March 29, 1986

Project No. 85-001
Job No. 85-001

FOR ES Atlanta/Duke 85-001
Address 17 Executive Park S.E. Suite 100
Atlanta, Georgia 30329

Client No. 85-001

Lab Number 85-001
Sample No. 85-001-001
Date Sampled 2-11-86
Time Sampled 1:30
Date Extracted 2-11-86
Date Analyzed 3-19-86

Compound	Detection Limits mg/kg	mg/kg
1,3-Dichlorobenzene	0.06	0.06
1,4-Dichlorobenzene	0.06	0.06
Hexachloroethane	0.06	0.06
Bis(2-chloroethyl) ether	0.06	0.06
1,2-Dichlorobenzene	0.06	0.06
N-Nitrosodimethylamine	2.5	0.06
Bis(2-chloroisopropyl) ether	0.06	0.06
N-Nitrosodi-n-propyl amine	0.06	0.06
Hexachlorobutadiene	0.06	0.06
1,2,4-Trichlorobenzene	0.06	0.06
Nitrobenzene	0.06	0.06
Isophorone	0.06	0.06
Naphthalene	0.06	0.06
Bis(2-chloroethoxy)methane	0.06	0.06
2-Chloronaphthalene	0.06	0.06
Hexachlorocyclopentadiene	0.06	0.06
Acenaphthylene	0.06	0.06
Acenaphthene	0.06	0.06
Dimethyl phthalate	0.06	0.06
2,6-Dinitrotoluene	0.06	0.06
Fluorene	0.06	0.06
2,4-Dinitrotoluene	0.06	0.06
Diethyl phthalate	0.06	0.06
N-Nitrosodiphenylamine	0.06	0.06
Hexachlorobenzene	0.06	0.06

Priority Pollutant Analysis
 Base Montreals - SW 0270
 Matrix Soil
 (continued)

page 2 of 5

Date Received February 11, 1988
 Date Reported March 29, 1988

P O No
 Job No AT077

Job ES Atlanta/Orla AMES
 Address 57 Executive Park S E, Suite 990
 Atlanta, Georgia 30329

ATTN Mr Jim Duncan

Job Number 000370
 Sample No UFI 8-14 882, 3 5
 Date Sampled 2-18-88
 Time Sampled 1230
 Date Extracted 2-21-88
 Date Analyzed 3-19-88

Compound	ANALYTICAL RESULTS	
	Detection Limit ng/kg	ng/kg
Phenanthrene	0.66	ND
Anthracene	0.66	ND
Dibutyl phthalate	0.66	ND
Fluoranthene	0.66	ND
4-Chlorophenyl phenyl ether	0.66	ND
Pyrene	0.66	ND
Butyl Benzyl phthalate	0.66	ND
Bis(2-ethylhexyl) phthalate	0.66	ND
Chrysene	0.66	ND
4-Bromophenyl phenyl ether	0.66	ND
Benz(a)anthracene	0.66	ND
Di-n-octylphthalate	0.66	ND
Benz(b)fluoranthene	0.66	ND
Benz(k)fluoranthene	0.66	ND
Benzidine	6.0	ND
3,3'-Dichlorobenzidine	1.3	ND
Benz(a)pyrene	0.66	ND
Indene(1,2,3-cd)pyrene	0.66	ND
Dibenz(a,h)anthracene	0.66	ND
Benz(ghi)perylene	0.66	ND
Benzyl Alcohol	1.3	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: February 11, 1988
Date Reported: March 25, 1988

P.O. No.:
Job No.: AT077

For: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880378
Sample No.: VF1 B-14 SS2, 3.5'
Date Sampled: 2-10-88
Time Sampled: 1230
Date Extracted: 2-21-88
Date Analyzed: 3-15-88

Compound	Detection Limits mg/kg	Analytical Results mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	1.3	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	0.66	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a-,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	0.66	ND
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	3.3	ND
3-Nitroaniline	3.3	ND
4-Nitroaniline	3.3	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SW 8270
Matrix: Soil

page 4 of 5

Date Received: February 11, 1988
Date Reported: March 25, 1988

P.O. No.:
Job No.: AT077

Re: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN:Mr. Jim Duncan

Lab Number: 880378
Sample No.: UF1 B-14 SS2, 3.5'
Date Sampled: 2-10-88
Time Sampled: 1230
Date Extracted: 2-21-88
Date Analyzed: 3-15-88

Compound	Detection Limits	ANALYTICAL RESULTS	
	mg/kg	mg/kg	
para-BHC	--*	ND	
meta-BHC	--*	ND	
ortho-BHC	0.4	ND	
gamma-chlor	0.2	ND	
delta-BHC	0.3	ND	
drin	0.2	ND	
gamma-chlor epoxide	0.2	ND	
disulfan I	--*	ND	
eldrin	0.3	ND	
4'-DDE	0.6	ND	
drin	--*	ND	
disulfan II	--*	ND	
4'-DDD	0.3	ND	
4'-DDT	0.5	ND	
disulfan Sulfate	0.6	ND	
drin aldehyde	--*	ND	
drin Ketone	--*	ND	
lordane	4.0	ND	
thoxychlor	--*	ND	
xaphene	4.0	ND	
oclor-1016	4.0	ND	
oclor-1221	4.0	ND	
oclor-1232	4.0	ND	
oclor-1242	4.0	ND	
oclor-1248	4.0	ND	
oclor-1254	4.0	ND	
oclor-1260	4.0	ND	

EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analyte
Acid Extractables -- SM 8270
Matrix Soil

page 5 of 5

Date Received: February 11, 1988
Date Reported: March 25, 1988

P.O. no
Job no ATTN

FOR: ES:Atlanta/Volk AMGB
Address: 57 Executive Park S.E., Suite 190
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 000370
Sample No.: UFI 8-14 582, 3 1
Date Sampled: 2-16-88
Time Sampled: 1230
Date Extracted: 2-21-88
Date Analyzed: 3-19-88

Compound	Detection	ANALYTICAL RESULTS
	Limit mg/kg	mg/kg
2-Chlorophenol	0.66	66
2-Nitrophenol	0.66	66
Phenol	0.66	66
2,4-Dimethylphenol	0.66	66
2,4-Dichlorophenol	0.66	66
2,4,6-Trichlorophenol	0.66	66
4-Chloro-3-methylphenol	1.3	66
2,4-Dinitrophenol	3.3	66
2,6-Dichlorophenol	--	66
2-Methyl-4,6-Dinitrophenol	3.3	66
Pentachlorophenol	3.3	66
4-Nitrophenol	3.3	66
Benzoic Acid	3.3	66
2-Methylphenol	0.66	66
3- & 4-Methylphenol	0.66	66
2,3,4,6-Tetrachlorophenol	--	66
2,4,5-Trichlorophenol	0.66	66

.....
Laura Kueh
Analyst

.....
Bill Barton
Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense

1990

POLYMER LETTERS

Compound	Detection Limits mg/kg	ANALYTICAL RESULTS mg/kg
----------	------------------------------	-----------------------------

1-Dichlorobenzene	0 66
4-Dichlorobenzene	0 66
o-chloroethane	0 66
s-(2-chloroethyl) ether	0 66
2-Dichlorobenzene	0 66
Nitrosodimethylamine	7 9
s-(2-chloroisopropyl) ether	0 66
Nitrosodi-n-propyl amine	0 66
o-chlorobutadiene	0 66
2,4-Trichlorobenzene	0 66
bromobenzene	0 66
spherene	0 66
phthalene	0 66
s-(2-chloroocthyl)methane	0 66
Chloronaphthalene	0 66
o-chlorocyclopentadiene	0 66
naphthylene	0 66
naphthene	0 66
methyl phthalate	0 66
8-Dinitrotoluene	0 66
xerene	0 66
4-Dinitrotoluene	0 66
ethyl phthalate	0 66
Nitrosodiphenylamine	0 66
o-chlorobenzene	0 66

Priority Pollutant Analysis
Base Neutrals - SU 8270
Matrix Soil
(continued)

page 2 of 5

Date Received February 11, 1988
Date Reported March 23, 1988

P O No
Job No AT077

OR ES Atlanta/Volk AMSB
Address 97 Executive Park S E, Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number 880371
Sample No UF1 B-14 SS3, 8.5'
Date Sampled 2-10-88
Time Sampled 1330
Date Extracted 2-21-88
Date Analyzed 3-14-88

Compound	Detection Limit mg/kg	ANALYTICAL RESULTS	
		mg/kg	
Phenanthrene	0.66	ND	
Anthracene	0.66	ND	
n-Butyl phthalate	0.66	ND	
Fluoranthene	0.66	ND	
4-Chlorophenyl phenyl ether	0.66	ND	
Pyrene	0.66	ND	
n-Butyl Benzyl phthalate	0.66	ND	
Bis(2-ethylhexyl) phthalate	0.66	ND	
Chrysene	0.66	ND	
4-Bromophenyl phenyl ether	0.66	ND	
Benzo(a)anthracene	0.66	ND	
Bis-n-octylphthalate	0.66	ND	
Benzo(b)fluoranthene	0.66	ND	
Benzo(k)fluoranthene	0.66	ND	
Benzidine	6.0	ND	
3,3'-Dichlorobenzidine	1.3	ND	
Benzo(a)pyrene	0.66	ND	
Indeno(1,2,3-cd)pyrene	0.66	ND	
Dibenzo(a,h)anthracene	0.66	ND	
Benzo(ghi)perylene	0.66	ND	
Benzyl Alcohol	1.3	ND	

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Received: February 11, 1988
Reported: March 25, 1988

P.O. No.:
Job No.: AT077

ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Sample Number: 880371
Sample No.: UF1 B-14 SS3, 8.5'
Date Sampled: 2-10-88
Volume Sampled: 1330
Date Extracted: 2-21-88
Date Analyzed: 3-14-88

Compound	Detection Limits	Analytical Results
	mg/kg	mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
Aminobiphenyl	--*	ND
Chloroaniline	1.3	ND
Chloronaphthalene	--*	ND
benzofuran	0.66	ND
Dimethylaminoazobenzene	--*	ND
12-Dimethylbenz(a)anthracene	--*	ND
,a-Dimethylphenethylamine	--*	ND
phenylamine	--*	ND
2-Diphenylhydrazine	--*	ND
thyl methanesulfonate	--*	ND
Methylcholanthrene	--*	ND
thyl methanesulfonate	--*	ND
Methylcholanthrene	--*	ND
Methylnaphthalene	0.66	ND
Naphthylamine	--*	ND
Naphthylamine	--*	ND
Nitroaniline	3.3	ND
Nitroaniline	3.3	ND
Nitroaniline	3.3	ND
Nitroso-di-n-butylamine	--*	ND
Nitrosopiperidine	--*	ND
ntachlorobenzene	--*	ND
ntachloronitrobenzene	--*	ND
enacetin	--*	ND
Picoline	--*	ND
onamide	--*	ND
2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SW 8270
Matrix: Soil

page 4 of 5

Date Received: February 11, 1988
Date Reported: March 25, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN:Mr. Jim Duncan

Lab Number: 880371
Sample No.: UF1 B-14 SS3, 8.5'
Date Sampled: 2-10-88
Time Sampled: 1330
Date Extracted: 2-21-88
Date Analyzed: 3-14-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
Alpha-BHC	--*	ND
Gamma-BHC	---	ND
Beta-BHC	0.4	ND
Heptachlor	0.2	ND
Delta-BHC	0.3	ND
Aldrin	0.2	ND
Heptachlor epoxide	0.2	ND
Endosulfan I	--*	ND
Dieldrin	0.3	ND
4,4'-DDE	0.6	ND
Endrin	--*	ND
Endosulfan II	--*	ND
4,4'-DDD	0.3	ND
4,4'-DDT	0.5	ND
Endosulfan Sulfate	0.6	ND
Endrin aldehyde	--*	ND
Endrin Ketone	--*	ND
Chlordane	4.0	ND
Methoxychlor	--*	ND
Toxaphene	4.0	ND
Proclor-1016	4.0	ND
Proclor-1221	4.0	ND
Proclor-1232	4.0	ND
Proclor-1242	4.0	ND
Proclor-1248	4.0	ND
Proclor-1254	4.0	ND
Proclor-1260	4.0	ND

* EPA has not yet determined detection limits for these compounds.

Priority, Pollution and
 and Estimated - 25 0174
 250174

Page 2 of 2

Date Received February 11, 1980
 Date Reported March 24, 1980

P. O. No.
 Job No.
 250174

FOR: ES Atlanta/Date 4/23/80
 Address 57 Executive Park S.E. Suite 101
 Atlanta, Georgia 30339

Lab Number 00337
 Sample No. 10: 0-10 352 0 1
 Date Sampled 2-19-80
 Time Sampled 1230
 Date Extracted 2-21-80
 Date Analyzed 2-10-80

Compound	Detection Limits mg/kg	ANALYTICAL RESULTS mg/kg
2-Chlorophenol	0.66	ND
2-Nitrophenol	0.66	ND
Phenol	0.66	ND
2,4-Dimethylphenol	0.66	ND
2,4-Dichlorophenol	0.66	ND
2,4,6-Trichlorophenol	0.66	ND
4-Chloro-3-methylphenol	1.3	ND
2,4-Dinitrophenol	3.3	ND
2,6-Dichlorophenol	--*	ND
2-Methyl-4,6-Dinitrophenol	3.3	ND
Pentachlorophenol	3.3	ND
4-Nitrophenol	3.3	ND
Benzoic Acid	3.3	ND
2-Methylphenol	0.66	ND
3- & 4-Methylphenol	0.66	ND
2,3,4,6-Tetrachlorophenol	--*	ND
2,4,5-Trichlorophenol	0.66	ND

Laura Kuck
 Analyst

AWBurt
 Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

1990

1998

Abstract

1992

Abstract

1000

1000

2000

000000 000000 000000 000000

1000

10

494

W.



100



10

40

40

4

Priority Pollutant Analysis
 Base Material - SW 0270
 Matrix: Soil
 (continued)

page 2 of 5

Date Received February 11, 1988
 Date Reported March 29, 1988

P O No
 Job No AT077

FOR ES Atlanta/Orla 4043
 Address: 97 Executive Park S E, Suite 990
 Atlanta, Georgia 30329

ATTN: Mr Jim Duncan

Lab Number 000372
 Sample No UF1 B-15 SS1, 0 5
 Date Sampled 2-18-88
 Time Sampled 1350
 Date Extracted 2-21-88
 Date Analyzed 2-15-88

Compound	Detection Limit mg/kg	ANALYTICAL RESULTS	
		mg/kg	
Phenanthrene	0.66	ND	
Anthracene	0.66	ND	
Dibutyl phthalate	0.66	ND	
Fluoranthene	0.66	ND	
4-Chlorophenyl phenyl ether	0.66	ND	
Pyrene	0.66	ND	
Butyl Benzyl phthalate	0.66	ND	
Bis(2-ethylhexyl) phthalate	0.66	ND	
Chrysene	0.66	ND	
4-Bromophenyl phenyl ether	0.66	ND	
Benzo(a)anthracene	0.66	ND	
Di-n-octylphthalate	0.66	ND	
Benzo(b)fluoranthene	0.66	ND	
Benzo(k)fluoranthene	0.66	ND	
Benzidine	6.0	ND	
3,3'-Dichlorobenzidine	1.3	ND	
Benzo(a)pyrene	0.66	ND	
Indeno(1,2,3-cd)pyrene	0.66	ND	
Dibenzo(a,h)anthracene	0.66	ND	
Benzo(ghi)perylene	0.66	ND	
Benzyl Alcohol	1.3	ND	

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: February 11, 1988
Date Reported: March 25, 1988

P.O. No.:
Job No.: AT077

For: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880372
Sample No.: UF1 B-15 SS1, 0.5'
Date Sampled: 2-10-88
Time Sampled: 1350
Date Extracted: 2-21-88
Date Analyzed: 3-15-88

Compound	Detection Limits mg/kg	Analytical Results mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	1.3	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	0.66	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a-,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	0.66	ND
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	3.3	ND
3-Nitroaniline	3.3	ND
4-Nitroaniline	3.3	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SW 8270
Matrix: Soil

page 4 of 5

Date Received: February 11, 1988
Date Reported: March 25, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN:Mr. Jim Duncan

Lab Number: 880372
Sample No.: UF1 B-15 SS1, 0.5'
Date Sampled: 2-10-88
Time Sampled: 1350
Date Extracted: 2-21-88
Date Analyzed: 3-15-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
Alpha-BHC	--*	ND
Gamma-BHC	---	ND
Beta-BHC	0.4	ND
Heptachlor	0.2	ND
Delta-BHC	0.3	ND
Aldrin	0.2	ND
Heptachlor epoxide	0.2	ND
Endosulfan I	--*	ND
Dieldrin	0.3	ND
4,4'-DDE	0.6	ND
Endrin	--*	ND
Endosulfan II	--*	ND
4,4'-DDD	0.3	ND
4,4'-DDT	0.5	ND
Endosulfan Sulfate	0.6	ND
Endrin aldehyde	--*	ND
Endrin Ketone	--*	ND
Chlordane	4.0	ND
Methoxychlor	--*	ND
Toxaphene	4.0	ND
Aroclor-1016	4.0	ND
Aroclor-1221	4.0	ND
Aroclor-1232	4.0	ND
Aroclor-1242	4.0	ND
Aroclor-1248	4.0	ND
Aroclor-1254	4.0	ND
Aroclor-1260	4.0	ND

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SM 8270
Matrix: Soil

Page 5 of 5

Date Received: February 11, 1988
Date Reported: March 25, 1988

P. O. No.
Job No. AT977

FOR: ES: Atlanta/Volk AMCS
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 000372
Sample No.: UFI 8-15 881. 0 9
Date Sampled: 2-10-88
Time Sampled: 1350
Date Extracted: 2-21-88
Date Analyzed: 3-15-88

Compound	Detection Limits mg/kg	ANALYTICAL RESULTS	
		mg/kg	
2-Chlorophenol	0.66	ND	
2-Nitrophenol	0.66	ND	
Phenol	0.66	ND	
2,4-Dimethylphenol	0.66	ND	
2,4-Dichlorophenol	0.66	ND	
2,4,6-Trichlorophenol	0.66	ND	
4-Chloro-3-methylphenol	1.3	ND	
2,4-Dinitrophenol	3.3	ND	
2,6-Dichlorophenol	--*	ND	
2-Methyl-4,6-Dinitrophenol	3.3	ND	
Pentachlorophenol	3.3	ND	
4-Nitrophenol	3.3	ND	
Benzoic Acid	3.3	ND	
2-Methylphenol	0.66	ND	
3- & 4-Methylphenol	0.66	ND	
2,3,4,6-Tetrachlorophenol	--*	ND	
2,4,5-Trichlorophenol	0.66	ND	

Laura Kuck

Analyst

Alan Brinkman

Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Materials - SW 8270
Matrix Soil

page 1 of 5

Date Received: February 11, 1988
Date Reported: March 29, 1988

P O No
Job No AT077

FOR: ES Atlanta/Unk AMCB
Address: 57 Executive Park S E, Suite 590
Atlanta, Georgia 30329

ATTN: Mr Jim Duncan

Lab Number: 880373
Sample No: UF1 B-15 SS2, 3 5
Date Sampled: 2-10-88
Time Sampled: 1500
Date Extracted: 2-21-88
Date Analyzed: 3-15-88

Compound	Detection	ANALYTICAL RESULTS	
	Limit mg/kg	mg/kg	
1,3-Dichlorobenzene	0.66	ND	
1,4-Dichlorobenzene	0.66	ND	
Hexachloroethane	0.66	ND	
Bis(2-chloroethyl)ether	0.66	ND	
1,2-Dichlorobenzene	0.66	ND	
N-Nitrosodimethylemine	2.5	ND	
Bis(2-chloroisopropyl)ether	0.66	ND	
N-Nitrosodi-n-propyl amine	0.66	ND	
Hexachlorobutadiene	0.66	ND	
1,2,4-Trichlorobenzene	0.66	ND	
Nitrobenzene	0.66	ND	
Isophorone	0.66	ND	
Naphthalene	0.66	ND	
Bis(2-chloroethoxy)methane	0.66	ND	
2-Chloronaphthalene	0.66	ND	
Hexachlorocyclopentadiene	0.66	ND	
Acenaphthylene	0.66	ND	
Acenaphthene	0.66	ND	
Dimethyl phthalate	0.66	ND	
2,6-Dinitrotoluene	0.66	ND	
Fluorene	0.66	ND	
2,4-Dinitrotoluene	0.66	ND	
Diethyl phthalate	0.66	ND	
N-Nitrosodiphenylamine	0.66	ND	
Hexachlorobenzene	0.66	ND	

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 5

Date Received: February 11, 1988
Date Reported: March 25, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880373
Sample No.: UF1 B-15 SS2, 3.5'
Date Sampled: 2-10-88
Time Sampled: 1500
Date Extracted: 2-21-88
Date Analyzed: 3-15-88

Compound	Detection Limit mg/kg	ANALYTICAL RESULTS
		mg/kg
Phenanthrene	0.66	ND
Anthracene	0.66	ND
Dibutyl phthalate	0.66	ND
Fluoranthene	0.66	ND
4-Chlorophenyl phenyl ether	0.66	ND
Pyrene	0.66	ND
Butyl Benzyl phthalate	0.66	ND
Bis(2-ethylhexyl) phthalate	0.66	ND
Chrysene	0.66	ND
4-Bromophenyl phenyl ether	0.66	ND
Benzo(a)anthracene	0.66	ND
Di-n-octylphthalate	0.66	ND
Benzo(b)fluoranthene	0.66	ND
Benzo(k)fluoranthene	0.66	ND
Benzidine	6.0	ND
3,3'-Dichlorobenzidine	1.3	ND
Benzo(a)pyrene	0.66	ND
Indeno(1,2,3-cd)pyrene	0.66	ND
Dibenzo(a,h)anthracene	0.66	ND
Benzo(ghi)perylene	0.66	ND
Benzyl Alcohol	1.3	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: February 11, 1988
Date Reported: March 25, 1988

P.O. No.:
Job No.: AT077

For: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880373
Sample No.: UF1 B-15 SS2, 3.5'
Date Sampled: 2-10-88
Time Sampled: 1500
Date Extracted: 2-21-88
Date Analyzed: 3-15-88

Compound	Detection Limits mg/kg	Analytical Results mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	1.3	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	0.66	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a-,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	0.66	ND
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	3.3	ND
3-Nitroaniline	3.3	ND
4-Nitroaniline	3.3	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SU 0270
Matrix Soil

page 4 of 5

Date Received: February 11, 1988
Date Reported: March 25, 1988

P.O. No.
Job No. AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880373
Sample No.: UFI B-15 882, J 5
Date Sampled: 2-10-88
Time Sampled: 1900
Date Extracted: 2-21-88
Date Analyzed: 3-15-88

Compound	Detection	ANALYTICAL RESULTS	
	Limits mg/kg	mg/kg	
Alpha-BHC	--*	ND	
Gamma-BHC	--*	ND	
Beta-BHC	0.4	ND	
Heptachlor	0.2	ND	
Delta-BHC	0.3	ND	
Aldrin	0.2	ND	
Heptachlor epoxide	0.2	ND	
Endosulfan I	--*	ND	
Dieldrin	0.3	ND	
4,4'-DDE	0.6	ND	
Endrin	--*	ND	
Endosulfan II	--*	ND	
4,4'-DDD	0.3	ND	
4,4'-DDT	0.5	ND	
Endosulfan Sulfate	0.6	ND	
Endrin aldehyde	--*	ND	
Endrin Ketone	--*	ND	
Chlordane	4.0	ND	
Methoxychlor	--*	ND	
Toxaphene	4.0	ND	
Aroclor-1016	4.0	ND	
Aroclor-1221	4.0	ND	
Aroclor-1232	4.0	ND	
Aroclor-1242	4.0	ND	
Aroclor-1248	4.0	ND	
Aroclor-1254	4.0	ND	
Aroclor-1260	4.0	ND	

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SU 0270
Matrix: Soil

page 5 of 5

Date Received: February 11, 1988
Date Reported: March 29, 1988

P.O. No.:
Job No.: AT077

FOR: ES: Atlanta/Volk AMGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880373
Sample No.: UF1 B-15 SS2, 3.5'
Date Sampled: 2-10-88
Time Sampled: 1500
Date Extracted: 2-21-88
Date Analyzed: 3-15-88

Compound	Detection	ANALYTICAL RESULTS	
	Limits mg/kg	mg/kg	
2-Chlorophenol	0.66	ND	
2-Nitrophenol	0.66	ND	
Phenol	0.66	ND	
2,4-Dimethylphenol	0.66	ND	
2,4-Dichlorophenol	0.66	ND	
2,4,6-Trichlorophenol	0.66	ND	
4-Chloro-3-methylphenol	1.3	ND	
2,4-Dinitrophenol	3.3	ND	
2,6-Dichlorophenol	--*	ND	
2-Methyl-4,6-Dinitrophenol	3.3	ND	
Pentachlorophenol	3.3	ND	
4-Nitrophenol	3.3	ND	
Benzoic Acid	3.3	ND	
2-Methylphenol	0.66	ND	
3- & 4-Methylphenol	0.66	ND	
2,3,4,6-Tetrachlorophenol	--*	ND	
2,4,5-Trichlorophenol	0.66	ND	

Laura Kueck
Analyst

W. B. Burton
Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil

page 1 of 5

Date Received: February 11, 1988
Date Reported: March 25, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880374
Sample No.: UF1 B-15 SS3, 8.5'
Date Sampled: 2-10-88
Time Sampled: 1510
Date Extracted: 2-21-88
Date Analyzed: 3-15-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
1,3-Dichlorobenzene	0.66	ND
1,4-Dichlorobenzene	0.66	ND
Hexachloroethane	0.66	ND
Bis(2-chloroethyl)ether	0.66	ND
1,2-Dichlorobenzene	0.66	ND
N-Nitrosodimethylamine	2.5	ND
Bis(2-chloroisopropyl)ether	0.66	ND
N-Nitrosodi-n-propyl amine	0.66	ND
Hexachlorobutadiene	0.66	ND
1,2,4-Trichlorobenzene	0.66	ND
Nitrobenzene	0.66	ND
Isophorone	0.66	ND
Naphthalene	0.66	ND
Bis(2-chloroethoxy)methane	0.66	ND
2-Chloronaphthalene	0.66	ND
Hexachlorocyclopentadiene	0.66	ND
Acenaphthylene	0.66	ND
Acenaphthene	0.66	ND
Dimethyl phthalate	0.66	ND
2,6-Dinitrotoluene	0.66	ND
Fluorene	0.66	ND
2,4-Dinitrotoluene	0.66	ND
Diethyl phthalate	0.66	ND
N-Nitrosodiphenylamine	0.66	ND
Hexachlorobenzene	0.66	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 5

Date Received: February 11, 1988
Date Reported: March 25, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880374
Sample No.: UF1 B-15 SS3, 8.5'
Date Sampled: 2-10-88
Time Sampled: 1510
Date Extracted: 2-21-88
Date Analyzed: 3-15-88

Compound	Detection	ANALYTICAL RESULTS	
	Limit mg/kg	mg/kg	
Phenanthrene	0.66	ND	
Anthracene	0.66	ND	
Dibutyl phthalate	0.66	ND	
Fluoranthene	0.66	ND	
4-Chlorophenyl phenyl ether	0.66	ND	
Pyrene	0.66	ND	
Butyl Benzyl phthalate	0.66	ND	
Bis(2-ethylhexyl) phthalate	0.66	ND	
Chrysene	0.66	ND	
4-Bromophenyl phenyl ether	0.66	ND	
Benzo(a)anthracene	0.66	ND	
Di-n-octylphthalate	0.66	ND	
Benzo(b)fluoranthene	0.66	ND	
Benzo(k)fluoranthene	0.66	ND	
Benzidine	6.0	ND	
3,3'-Dichlorobenzidine	1.3	ND	
Benzo(a)pyrene	0.66	ND	
Indeno(1,2,3-cd)pyrene	0.66	ND	
Dibenzo(a,h)anthracene	0.66	ND	
Benzo(ghi)perylene	0.66	ND	
Benzyl Alcohol	1.3	ND	

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: February 11, 1988
Date Reported: March 25, 1988

P.O. No.:
Job No.: AT077

For: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880374
Sample No.: UF1 B-15 SS3, 8.5'
Date Sampled: 2-10-88
Time Sampled: 1510
Date Extracted: 2-21-88
Date Analyzed: 3-15-88

Compound	Detection	Analytical Results
	Limits mg/kg	mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	1.3	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	0.66	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a-,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	0.66	ND
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	3.3	ND
3-Nitroaniline	3.3	ND
4-Nitroaniline	3.3	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds

Priority Pollutant Analysis
Pesticides and PCBs - SW 8270
Matrix: Soil

page 4 of 5

Date Received: February 11, 1988
Date Reported: March 25, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN:Mr. Jim Duncan

Lab Number: 880374
Sample No.: UF1 B-15 SS3, 8.5'
Date Sampled: 2-10-88
Time Sampled: 1510
Date Extracted: 2-21-88
Date Analyzed: 3-15-88

Compound	Detection	ANALYTICAL RESULTS	
	Limits mg/kg	mg/kg	
Alpha-BHC	--*	ND	
Gamma-BHC	---	ND	
Beta-BHC	0.4	ND	
Heptachlor	0.2	ND	
Delta-BHC	0.3	ND	
Aldrin	0.2	ND	
Heptachlor epoxide	0.2	ND	
Endosulfan I	--*	ND	
Dieldrin	0.3	ND	
4,4'-DDE	0.6	ND	
Endrin	--*	ND	
Endosulfan II	--*	ND	
4,4'-DDD	0.3	ND	
4,4'-DDT	0.5	ND	
Endosulfan Sulfate	0.6	ND	
Endrin aldehyde	--*	ND	
Endrin Ketone	--*	ND	
Chlordane	4.0	ND	
Methoxychlor	--*	ND	
Toxaphene	4.0	ND	
Aroclor-1016	4.0	ND	
Aroclor-1221	4.0	ND	
Aroclor-1232	4.0	ND	
Aroclor-1242	4.0	ND	
Aroclor-1248	4.0	ND	
Aroclor-1254	4.0	ND	
Aroclor-1260	4.0	ND	

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SU 0270
Matrix: Soil

page 5 of 5

Date Received: February 11, 1988
Date Reported: March 25, 1988

P.O. No.
Job No. AT077

FOR: ES:Atlanta/Uolk ANGB
Address: 57 Executive Park S.E., Suite 390
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880374
Sample No.: UF1 B-15 S83, 0 5
Date Sampled: 2-10-88
Time Sampled: 1510
Date Extracted: 2-21-88
Date Analyzed: 3-15-88

Compound	Detection	ANALYTICAL RESULTS	
	Limits mg/kg	mg/kg	
2-Chlorophenol	0.66	ND	
2-Nitrophenol	0.66	ND	
Phenol	0.66	ND	
2,4-Dimethylphenol	0.66	ND	
2,4-Dichlorophenol	0.66	ND	
2,4,6-Trichlorophenol	0.66	ND	
4-Chloro-3-methylphenol	1.3	ND	
2,4-Dinitrophenol	3.3	ND	
2,6-Dichlorophenol	--*	ND	
2-Methyl-4,6-Dinitrophenol	3.3	ND	
Pentachlorophenol	3.3	ND	
4-Nitrophenol	3.3	ND	
Benzoic Acid	3.3	ND	
2-Methylphenol	0.66	ND	
3- & 4-Methylphenol	0.66	ND	
2,3,4,6-Tetrachlorophenol	--*	ND	
2,4,5-Trichlorophenol	0.66	ND	

Laura Kuck
Analyst

Al W. Burton
Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SU 9270
Matrix Soil

Page 1 of 1

Date Received January 27, 1988
Date Reported March 1, 1988

P.O. No.
Job No. WT077

FOR ES Atlanta/Volk Field ANGB
Address 57 Executive Park S.E. Suite 590
Atlanta, Georgia 30329

ATTN Mr. Jim Duncan

Lab Number 990187
Sample No. DF1 8-21 SS-1, 10
Date Sampled 1-26-88
Time Sampled 1210
Date Extracted 2-1-88
Date Analyzed 2-8-89

Compound	Detection Limits	ANALYTICAL RESULTS
	mg/kg	mg/kg
1,3-Dichlorobenzene	0.66	ND
1,4-Dichlorobenzene	0.66	ND
Hexachloroethane	0.66	ND
Bis(2-chloroethyl)ether	0.66	ND
1,2-Dichlorobenzene	0.66	ND
N-Nitrosodimethylamine	2.5	ND
Bis(2-chloroisopropyl)ether	0.66	ND
N-Nitrosodi-n-propyl amine	0.66	ND
Hexachlorobutadiene	0.66	ND
1,2,4-Trichlorobenzene	0.66	ND
Nitrobenzene	0.66	ND
Isophorone	0.66	ND
Naphthalene	0.66	ND
Bis(2-chloroethoxy)methane	0.66	ND
2-Chloronaphthalene	0.66	ND
Hexachlorocyclopentadiene	0.66	ND
Acenaphthylene	0.66	ND
Acenaphthene	0.66	ND
Dimethyl phthalate	0.66	ND
2,6-Dinitrotoluene	0.66	ND
Fluorene	0.66	ND
2,4-Dinitrotoluene	0.66	ND
Diethyl phthalate	0.66	ND
N-Nitrosodiphenylamine	0.66	ND
Hexachlorobenzene	0.66	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 3

Date Received: January 27, 1988
Date Reported: March 3, 1988

P.O. No.
Job No. AT077

FOR ES: Atlanta/Dolk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 380187
Sample No.: UF1 B-21 SS-1, 1 0'
Date Sampled: 1-26-88
Time Sampled: 1210
Date Extracted: 2-1-88
Date Analyzed: 2-8-88

Compound	Detection	ANALYTICAL RESULTS
	Limit mg/kg	mg/kg
Phenanthrene	0.66	ND
Anthracene	0.66	ND
Dibutyl phthalate	0.66	ND
Fluoranthene	0.66	ND
4-Chlorophenyl phenyl ether	0.66	ND
Pyrene	0.66	ND
Butyl Benzyl phthalate	0.66	ND
Bis(2-ethylhexyl) phthalate	0.66	ND
Chrysene	0.66	ND
4-Bromophenyl phenyl ether	0.66	ND
Benzo(a)anthracene	0.66	ND
Di-n-octylphthalate	0.66	ND
Benzo(b)fluoranthene	0.66	ND
Benzo(k)fluoranthene	0.66	ND
Benzidine	6.0	ND
3,3'-Dichlorobenzidine	1.3	ND
Benzo(a)pyrene	0.66	ND
Indeno(1,2,3-cd)pyrene	0.66	ND
Dibenzo(a,h)anthracene	0.66	ND
Benzo(ghi)perylene	0.66	ND
Benzyl Alcohol	1.3	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988

P.O. No.
Job No. AT077

For: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 980187
Sample No.: UF1 B-21 SS-1, 100
Date Sampled: 1-26-88
Time Sampled: 1210
Date Extracted: 2-1-88
Date Analyzed: 2-8-88

Compound	Detection Limits	Analytical Results
	mg/kg	mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	1.3	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	0.66	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	0.66	ND
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	3.3	ND
3-Nitroaniline	3.3	ND
4-Nitroaniline	3.3	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SW 9270
Matrix: Soil

Page 1 of 1

Date Received: January 27, 1988
Date Reported: March 3, 1988

P.O. No.
Job No. HT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 980187
Sample No.: UF1 B-21 SS-1, 1 0'
Date Sampled: 1-26-88
Time Sampled: 1210
Date Extracted: 2-1-88
Date Analyzed: 2-8-88

Compound	Detection Limits mg/kg	ANALYTICAL RESULTS	
		mg/kg	
Alpha-BHC	--*	ND	
Gamma-BHC	--*	ND	
Beta-BHC	0.4	ND	
Heptachlor	0.2	ND	
Delta-BHC	0.3	ND	
Aldrin	0.2	ND	
Heptachlor epoxide	0.2	ND	
Endosulfan I	--*	ND	
Dieldrin	0.3	ND	
4,4'-DDE	0.6	ND	
Endrin	--*	ND	
Endosulfan II	--*	ND	
4,4'-DDD	0.3	ND	
4,4'-DDT	0.5	ND	
Endosulfan Sulfate	0.6	ND	
Endrin aldehyde	--*	ND	
Endrin Ketone	--*	ND	
Chlordane	4.0	ND	
Methoxychlor	--*	ND	
Toxaphene	4.0	ND	
Aroclor-1016	4.0	ND	
Aroclor-1221	4.0	ND	
Aroclor-1232	4.0	ND	
Aroclor-1242	4.0	ND	
Aroclor-1248	4.0	ND	
Aroclor-1254	4.0	ND	
Aroclor-1260	4.0	ND	

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SW 8270
Matrix: Soil

page 5 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988

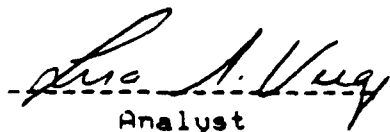
P.O. No.
Job No. AT077

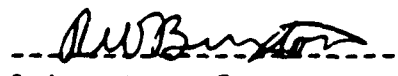
FOR: ES: Atlanta/Volk Field ANGB
Address: 57 Executive Park S E, Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880187
Sample No.: UF1 B-21 SS-1, 10'
Date Sampled: 1-26-88
Time Sampled: 1210
Date Extracted: 2-1-88
Date Analyzed: 2-8-88

Compound	Detection Limits mg/kg	ANALYTICAL RESULTS
		mg/kg
2-Chlorophenol	0.66	ND
2-Nitrophenol	0.66	ND
Phenol	0.66	ND
2,4-Dimethylphenol	0.66	ND
2,4-Dichlorophenol	0.66	ND
2,4,6-Trichlorophenol	0.66	ND
4-Chloro-3-methylphenol	1.3	ND
2,4-Dinitrophenol	3.3	ND
2,6-Dichlorophenol	--*	ND
2-Methyl-4,6-Dinitrophenol	3.3	ND
Pentachlorophenol	3.3	ND
4-Nitrophenol	3.3	ND
Benzoic Acid	3.3	ND
2-Methylphenol	0.66	ND
3- & 4-Methylphenol	0.66	ND
2,3,4,6-Tetrachlorophenol	--*	ND
2,4,5-Trichlorophenol	0.66	ND


Analyst


Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

CASE NARRATIVE

Sample(s) No.: 88010186-0199

Work Order Number 467

This group of samples was received at the Berkeley Laboratory on 1-27-88. It consisted of 14 soil samples for semivolatile organics analysis.

Relative percent differences for certain compounds exceeded the EPA recommended ranges. Corrective action was taken by re-extracting and reanalyzing the quality control sample.

Percent relative differences are within the EPA recommended ranges, although none of the spike compounds are detected in the sample.

Due to the matrix interferences, soil surrogate recoveries for samples 88010188 to 88010189 are diluted out.

All sample results are blank corrected.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil

page 1 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988

P.O. No.: 100-100000-10000
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880188
Sample No.: UF1 B-22 SS1, 0.5'
Date Sampled: 1-26-88
Time Sampled: 1430
Date Extracted: 2-1-88
Date Analyzed: 2-16-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
1,3-Dichlorobenzene	33	ND
1,4-Dichlorobenzene	33	ND
Hexachloroethane	33	ND
Bis(2-chloroethyl)ether	33	ND
1,2-Dichlorobenzene	33	ND
N-Nitrosodimethylamine	130	ND
Bis(2-chloroisopropyl)ether	33	ND
N-Nitrosodi-n-propyl amine	33	ND
Hexachlorobutadiene	33	ND
1,2,4-Trichlorobenzene	33	ND
Nitrobenzene	33	ND
Isophorone	33	ND
Naphthalene	33	ND
Bis(2-chloroethoxy)methane	33	ND
2-Chloronaphthalene	33	ND
Hexachlorocyclopentadiene	33	ND
Acenaphthylene	33	ND
Acenaphthene	33	ND
Dimethyl phthalate	33	ND
2,6-Dinitrotoluene	33	ND
Fluorene	33	ND
2,4-Dinitrotoluene	33	ND
Diethyl phthalate	33	ND
N-Nitrosodiphenylamine	33	ND
Hexachlorobenzene	33	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988

P.O. No.
Job No. AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880188
Sample No.: UF1 B-22 SS1, 0.5'
Date Sampled: 1-26-88
Time Sampled: 1430
Date Extracted: 2-1-88
Date Analyzed: 2-16-88

Compound	Detection	ANALYTICAL RESULTS
	Limit mg/kg	mg/kg
Phenanthrene	33	ND
Anthracene	33	ND
Dibutyl phthalate	33	ND
Fluoranthene	33	ND
4-Chlorophenyl phenyl ether	33	ND
Pyrene	33	ND
Butyl Benzyl phthalate	33	ND
Bis(2-ethylhexyl) phthalate	33	ND
Chrysene	33	ND
4-Bromophenyl phenyl ether	33	ND
Benzo(a)anthracene	33	ND
Di-n-octylphthalate	33	ND
Benzo(b)fluoranthene	33	ND
Benzo(k)fluoranthene	33	ND
Benzidine	300	ND
3,3'-Dichlorobenzidine	65	ND
Benzo(a)pyrene	33	ND
Indeno(1,2,3-cd)pyrene	33	ND
Dibenzo(a,h)anthracene	33	ND
Benzo(ghi)perylene	33	ND
Benzyl Alcohol	65	ND

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988

P.O. No.:
Job No.: AT077

For: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880188
Sample No.: UF1 B-22 SS1, 0.5'
Date Sampled: 1-26-88
Time Sampled: 1430
Date Extracted: 2-1-88
Date Analyzed: 2-16-88

Compound	Detection	Analytical Results
	Limits mg/kg	mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	65	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	33	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a-,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	33	ND
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	160	ND
3-Nitroaniline	160	ND
4-Nitroaniline	160	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SW 8270
Matrix: Soil

page 4 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988

P.O. No.
Job No. : AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880198
Sample No.: UF1 B-22 SS1, 0.5'
Date Sampled: 1-26-88
Time Sampled: 1430
Date Extracted: 2-1-88
Date Analyzed: 2-16-88

Compound	Detection	ANALYTICAL RESULTS	
	Limits mg/kg	mg/kg	
Alpha-BHC	--*	ND	
Gamma-BHC	---	ND	
Beta-BHC	20	ND	
Heptachlor	10	ND	
Delta-BHC	15	ND	
Aldrin	10	ND	
Heptachlor epoxide	10	ND	
Endosulfan I	--*	ND	
Dieldrin	15	ND	
4,4'-DDE	30	ND	
Endrin	--*	ND	
Endosulfan II	--*	ND	
4,4'-DDD	15	ND	
4,4'-DDT	25	ND	
Endosulfan Sulfate	30	ND	
Endrin aldehyde	--*	ND	
Endrin Ketone	--*	ND	
Chlordane	200	ND	
Methoxychlor	--*	ND	
Toxaphene	200	ND	
Aroclor-1016	200	ND	
Aroclor-1221	200	ND	
Aroclor-1232	200	ND	
Aroclor-1242	200	ND	
Aroclor-1248	200	ND	
Aroclor-1254	200	ND	
Aroclor-1260	200	ND	

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SW 8270
Matrix: Soil

page 5 of 5

Date Received: January 27, 1988
Date Reported: March 3, 1988

P.O. No.
Job No. AT007

FOR: ES:Atlanta/Dolk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 980188
Sample No.: UF1 B-22 SS1, 0.5
Date Sampled: 1-26-88
Time Sampled: 1430
Date Extracted: 2-1-88
Date Analyzed: 2-15-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
2-Chlorophenol	33	ND
2-Nitrophenol	33	ND
Phenol	33	ND
2,4-Dimethylphenol	33	ND
2,4-Dichlorophenol	33	ND
2,4,6-Trichlorophenol	33	ND
4-Chloro-3-methylphenol	65	ND
2,4-Dinitrophenol	160	ND
2,6-Dichlorophenol	--*	ND
2-Methyl-4,6-Dinitrophenol	160	ND
Pentachlorophenol	160	ND
4-Nitrophenol	160	ND
Benzoic Acid	160	ND
2-Methylphenol	33	ND
3- & 4-Methylphenol	33	ND
2,3,4,6-Tetrachlorophenol	--*	ND
2,4,5-Trichlorophenol	33	ND

Lisa A. Vega
Analyst

RWB
Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

CASE NARRATIVE

Sample(s) No.: 88010186-0199

Work Order Number 467

This group of samples was received at the Berkeley Laboratory on 1-17-88. It consisted of 14 soil samples for semivolatile organics analysis.

Relative percent differences for certain compounds exceeded the EPA recommended ranges. Corrective action was taken by re-extracting and reanalyzing the quality control sample.

Percent relative differences are within the EPA recommended ranges, although none of the spike compounds are detected in the sample.

Due to the matrix interferences, soil surrogate recoveries for samples 88010188 to 88010189 are diluted out.

All sample results are blank corrected.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil

page 1 of 5

Date Received: January 29, 1988
Date Reported: March 4, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880214
Sample No.: UF1, B26, SS1, 0'
Date Sampled: 1-28-88
Time Sampled: 1320
Date Extracted: 2-2-88
Date Analyzed: 3-1-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
1,3-Dichlorobenzene	0.66	ND
1,4-Dichlorobenzene	0.66	ND
Hexachloroethane	0.66	ND
Bis(2-chloroethyl)ether	0.66	ND
1,2-Dichlorobenzene	0.66	ND
N-Nitrosodimethylamine	2.5	ND
Bis(2-chloroisopropyl)ether	0.66	ND
N-Nitrosodi-n-propyl amine	0.66	ND
Hexachlorobutadiene	0.66	ND
1,2,4-Trichlorobenzene	0.66	ND
Nitrobenzene	0.66	ND
Isophorone	0.66	ND
Naphthalene	0.66	ND
Bis(2-chloroethoxy)methane	0.66	ND
2-Chloronaphthalene	0.66	ND
Hexachlorocyclopentadiene	0.66	ND
Acenaphthylene	0.66	ND
Acenaphthene	0.66	ND
Dimethyl phthalate	0.66	ND
2,6-Dinitrotoluene	0.66	ND
Fluorene	0.66	ND
2,4-Dinitrotoluene	0.66	ND
Diethyl phthalate	0.66	ND
N-Nitrosodiphenylamine	0.66	ND
Hexachlorobenzene	0.66	ND

Priority Pollutant Analysis
Base Neutrals - SW 9270
Matrix: Soil
(continued)

page 2 of 3

Date Received: January 29, 1988
Date Reported: March 4, 1988

P.O. No.
Job No 4T077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr Jim Duncan

Lab Number: 880214
Sample No.: 0F1, B26, SS1, 0'
Date Sampled: 1-28-88
Time Sampled: 1320
Date Extracted: 2-2-88
Date Analyzed: 3-1-88

Compound	Detection	ANALYTICAL RESULTS	
	Limit mg/kg	mg/kg	
Phenanthrene	0.66	ND	
Anthracene	0.66	ND	
Dibutyl phthalate	0.66	ND	
Fluoranthene	0.66	ND	
4-Chlorophenyl phenyl ether	0.66	ND	
Pyrene	0.66	ND	
Butyl Benzyl phthalate	0.66	ND	
Bis(2-ethylhexyl) phthalate	0.66	ND	
Chrysene	0.66	ND	
4-Bromophenyl phenyl ether	0.66	ND	
Benzo(a)anthracene	0.66	ND	
Di-n-octylphthalate	0.66	ND	
Benzo(b)fluoranthene	0.66	ND	
Benzo(k)fluoranthene	0.66	ND	
Benzidine	6.0	ND	
3,3'-Dichlorobenzidine	1.3	ND	
Benzo(a)pyrene	0.66	ND	
Indeno(1,2,3-cd)pyrene	0.66	ND	
Dibenzo(a,h)anthracene	0.66	ND	
Benzo(ghi)perylene	0.66	ND	
Benzyl Alcohol	1.3	ND	

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: January 29, 1988
Date Reported: March 4, 1988

P.O. No.
Job No. AT077

For ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880214
Sample No.: UF1, B26, SS1, 0
Date Sampled: 1-28-88
Time Sampled: 1320
Date Extracted: 2-2-88
Date Analyzed: 3-1-88

Compound	Detection	Analytical Results
	Limits mg/kg	mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	1.3	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	0.66	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	0.66	ND
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	3.3	ND
3-Nitroaniline	3.3	ND
4-Nitroaniline	3.3	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds.

page 4 of 5

P.O. No. _____
Job No. AT077

ATTN: Mr. Jim Duncan

Lab Number:	880214
Sample No.:	UF1, B26, SS1, 0
Date Sampled:	1-28-88
Time Sampled:	1320
Date Extracted:	2-2-88
Date Analyzed:	3-1-88

Compound	Detection	ANALYTICAL RESULTS
	Limits mg/kg	mg/kg
Alpha-BHC	--*	ND
Gamma-BHC	—*	ND
Beta-BHC	0.4	ND
Heptachlor	0.2	ND
Delta-BHC	0.3	ND
Aldrin	0.2	ND
Heptachlor epoxide	0.2	ND
Endosulfan I	--*	ND
Dieldrin	0.3	ND
4,4'-DDE	0.6	ND
Endrin	--*	ND
Endosulfan II	--*	ND
4,4'-DDD	0.3	ND
4,4'-DDT	0.5	ND
Endosulfan Sulfate	0.6	ND
Endrin aldehyde	--*	ND
Endrin Ketone	--*	ND
Chlordane	4.0	ND
Methoxychlor	--*	ND
Toxaphene	4.0	ND
Aroclor-1016	4.0	ND
Aroclor-1221	4.0	ND
Aroclor-1232	4.0	ND
Aroclor-1242	4.0	ND
Aroclor-1248	4.0	ND
Aroclor-1254	4.0	ND
Aroclor-1260	4.0	ND

E-413

Priority Pollutant Analysis
Acid Extractables -- SW 8270
Matrix: Soil

page 5 of 5

Date Received: January 29, 1988
Date Reported: March 4, 1988

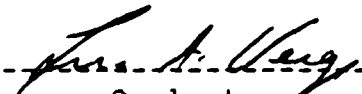
P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 980214
Sample No.: UF1, B26, SS1, 0'
Date Sampled: 1-28-88
Time Sampled: 1320
Date Extracted: 2-2-88
Date Analyzed: 3-1-88

Compound	Detection Limits mg/kg	ANALYTICAL RESULTS	
		mg/kg	
2-Chlorophenol	0.66	ND	
2-Nitrophenol	0.66	ND	
Phenol	0.66	ND	
2,4-Dimethylphenol	0.66	ND	
2,4-Dichlorophenol	0.66	ND	
2,4,6-Trichlorophenol	0.66	ND	
4-Chloro-3-methylphenol	1.3	ND	
2,4-Dinitrophenol	3.3	ND	
2,6-Dichlorophenol	--*	ND	
2-Methyl-4,6-Dinitrophenol	3.3	ND	
Pentachlorophenol	3.3	ND	
4-Nitrophenol	3.3	ND	
Benzoic Acid	3.3	ND	
2-Methylphenol	0.66	ND	
3- & 4-Methylphenol	0.66	ND	
2,3,4,6-Tetrachlorophenol	--*	ND	
2,4,5-Trichlorophenol	0.66	ND	


Analyst


Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil

page 1 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 980300
Sample No.: UF1 B-28 SS1, 1.5'
Date Sampled: 2-9-88
Time Sampled: 1600
Date Extracted: 2-17-88
Date Analyzed: 3-11-88

Compound	Detection	ANALYTICAL RESULTS	
	Limits	mg/kg	
	mg/kg		
1,3-Dichlorobenzene	0.66	ND	
1,4-Dichlorobenzene	0.66	ND	
Hexachloroethane	0.66	ND	
Bis(2-chloroethyl)ether	0.66	ND	
1,2-Dichlorobenzene	0.66	ND	
N-Nitrosodimethylamine	2.5	ND	
Bis(2-chloroisopropyl)ether	0.66	ND	
N-Nitrosodi-n-propyl amine	0.66	ND	
Hexachlorobutadiene	0.66	ND	
1,2,4-Trichlorobenzene	0.66	ND	
Nitrobenzene	0.66	ND	
Isophorone	0.66	ND	
Naphthalene	0.66	ND	
Bis(2-chloroethoxy)methane	0.66	ND	
2-Chloronaphthalene	0.66	ND	
Hexachlorocyclopentadiene	0.66	ND	
Acenaphthylene	0.66	ND	
Acenaphthene	0.66	ND	
Dimethyl phthalate	0.66	ND	
2,6-Dinitrotoluene	0.66	ND	
Fluorene	0.66	ND	
2,4-Dinitrotoluene	0.66	ND	
Diethyl phthalate	0.66	ND	
N-Nitrosodiphenylamine	0.66	ND	
Hexachlorobenzene	0.66	ND	

Priority Pollutant Analysis
Base Neutrals - SW 8270
Matrix: Soil
(continued)

page 2 of 5

Date Received: February 10, 1988

Date Reported: March 15, 1988

P.O. No.:

Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880300
Sample No.: UF1 B-28 SS1, 1.5'
Date Sampled: 2-9-88
Time Sampled: 1600
Date Extracted: 2-17-88
Date Analyzed: 3-11-88

Compound	Detection	ANALYTICAL RESULTS
	Limit mg/kg	mg/kg
Phenanthrene	0.66	ND
Anthracene	0.66	ND
Dibutyl phthalate	0.66	ND
Fluoranthene	0.66	ND
4-Chlorophenyl phenyl ether	0.66	ND
Pyrene	0.66	ND
Butyl Benzyl phthalate	0.66	ND
Bis(2-ethylhexyl) phthalate	0.66	ND
Chrysene	0.66	ND
4-Bromophenyl phenyl ether	0.66	ND
Benzo(a)anthracene	0.66	ND
Di-n-octylphthalate	0.66	ND
Benzo(b)fluoranthene	0.66	ND
Benzo(k)fluoranthene	0.66	ND
Benzidine	6.0	ND
3,3'-Dichlorobenzidine	1.3	ND
Benzo(a)pyrene	0.66	ND
Indeno(1,2,3-cd)pyrene	0.66	ND
Dibenzo(a,h)anthracene	0.66	ND
Benzo(ghi)perylene	0.66	ND
Benzyl Alcohol	1.3	ND

Priority Pollutant Analysis
Base Neutrals - SW 9270
Matrix: Soil
(continued)

Page 3 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

For: ES:Atlanta/Oolk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 980300
Sample No.: UF1 B-28 SS1, 1.5'
Date Sampled: 2-9-88
Time Sampled: 1600
Date Extracted: 2-17-88
Date Analyzed: 3-11-88

Compound	Detection Limits	Analytical Results
	mg/kg	mg/kg
Acetophenone	--*	ND
Aniline	--*	ND
4-Aminobiphenyl	--*	ND
4-Chloroaniline	1.3	ND
1-Chloronaphthalene	--*	ND
Dibenzofuran	0.66	ND
p-Dimethylaminoazobenzene	--*	ND
7,12-Dimethylbenz(a)anthracene	--*	ND
a-,a-Dimethylphenethylamine	--*	ND
Diphenylamine	--*	ND
1,2-Diphenylhydrazine	--*	ND
Ethyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
Methyl methanesulfonate	--*	ND
3-Methylcholanthrene	--*	ND
2-Methylnaphthalene	0.66	ND
1-Naphthylamine	--*	ND
2-Naphthylamine	--*	ND
2-Nitroaniline	3.3	ND
3-Nitroaniline	3.3	ND
4-Nitroaniline	3.3	ND
N-Nitroso-di-n-butylamine	--*	ND
N-Nitrosopiperidine	--*	ND
Pentachlorobenzene	--*	ND
Pentachloronitrobenzene	--*	ND
Phenacetin	--*	ND
2-Picoline	--*	ND
Pronamide	--*	ND
1,2,4,5-Tetrachlorobenzene	--*	ND

*EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Pesticides and PCBs - SW 8270
Matrix: Soil

page 4 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880300
Sample No.: UF1 B-28 SS1, 1.5'
Date Sampled: 2-9-88
Time Sampled: 1600
Date Extracted: 2-17-88
Date Analyzed: 3-11-88

Compound	Detection	ANALYTICAL RESULTS	
	Limits	mg/kg	
	mg/kg		
Alpha-BHC	--*	ND	
Gamma-BHC	—*	ND	
Beta-BHC	0.4	ND	
Heptachlor	0.2	ND	
Delta-BHC	0.3	ND	
Aldrin	0.2	ND	
Heptachlor epoxide	0.2	ND	
Endosulfan I	--*	ND	
Dieldrin	0.3	ND	
4,4'-DDE	0.6	ND	
Endrin	--*	ND	
Endosulfan II	--*	ND	
4,4'-DDD	0.3	ND	
4,4'-DDT	0.5	ND	
Endosulfan Sulfate	0.6	ND	
Endrin aldehyde	--*	ND	
Endrin Ketone	--*	ND	
Chlordane	4.0	ND	
Methoxychlor	--*	ND	
Toxaphene	4.0	ND	
Aroclor-1016	4.0	ND	
Aroclor-1221	4.0	ND	
Aroclor-1232	4.0	ND	
Aroclor-1242	4.0	ND	
Aroclor-1248	4.0	ND	
Aroclor-1254	4.0	ND	
Aroclor-1260	4.0	ND	

* EPA has not yet determined detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- SW 8270
Matrix: Soil

page 5 of 5

Date Received: February 10, 1988
Date Reported: March 15, 1988

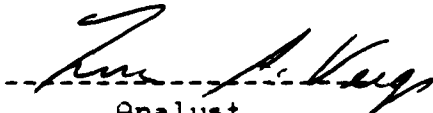
P.O. No.:
Job No.: AT077

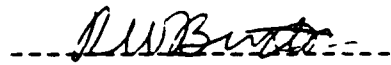
FOR: ES:Atlanta/Oolk Field ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number: 880300
Sample No.: UF1 B-28 SS1, 1.5'
Date Sampled: 2-9-88
Time Sampled: 1600
Date Extracted: 2-17-88
Date Analyzed: 3-11-88

Compound	Detection	ANALYTICAL RESULTS	
	Limits		
	mg/kg		mg/kg
2-Chlorophenol	0.66		ND
2-Nitrophenol	0.66		ND
Phenol	0.66		ND
2,4-Dimethylphenol	0.66		ND
2,4-Dichlorophenol	0.66		ND
2,4,6-Trichlorophenol	0.66		ND
4-Chloro-3-methylphenol	1.3		ND
2,4-Dinitrophenol	3.3		ND
2,6-Dichlorophenol	--*		ND
2-Methyl-4,6-Dinitrophenol	3.3		ND
Pentachlorophenol	3.3		ND
4-Nitrophenol	3.3		ND
Benzoic Acid	3.3		ND
2-Methylphenol	0.66		ND
3- & 4-Methylphenol	0.66		ND
2,3,4,6-Tetrachlorophenol	--*		ND
2,4,5-Trichlorophenol	0.66		ND


Analyst


Laboratory Supervisor

*EPA has not yet determined detection limits for these compounds.

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

PRIORITY POLLUTANT ANALYSIS
PESTICIDES & PCB'S
EPA 625
MATRIX: WATER

Client: ES Atlanta
Attn: Ernie Daly
Address: 57 Executive Park South
N. E. - Suite 590
Atlanta, Ga. 30329

Compound	Detection Limits	
Aldrin	2	ug/L
Alpha-BHC	2*	ug/L
Beta-BHC	4	ug/L
Delta-BHC	3	ug/L
Gamma-BHC (Lindane)	2*	ug/L
Chlordane	40	ug/L
4,4'-DDD	3	ug/L
4,4'-DDE	6	ug/L
4,4'-DDT	5	ug/L
Dieldrin	3	ug/L
Endosulfan I	8*	ug/L
Endosulfan II	8*	ug/L
Endosulfan sulfate	6	ug/L
Endrin	8*	ug/L
Endrin aldehyde	3*	ug/L
Heptachlor	2	ug/L
Heptachlor epoxide	2	ug/L
Toxaphene	40	ug/L
PCB-1016	40	ug/L
PCB-1221	40	ug/L
PCB-1232	40	ug/L
PCB-1242	40	ug/L
PCB-1248	40	ug/L
PCB-1254	40	ug/L
PCB-1260	40	ug/L

* Denotes instrument detection limit. EPA has not yet determined method detection limits for these compounds.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - EPA 625
Matrix: Water

page 1 of 4

Date Received: March 9, 1988
Date Reported: April 19, 1988

P.O. No.:
Job No. : AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329
ATTN: Mr. Jim Duncan

Lab Number:	880567	880568
Sample No.:	UF, ET-1, GW1, ES	UF, ET-2, GW1, ES
Date Sampled:	3-8-88	3-8-88
Time Sampled:	1115	1345
Date Extracted:	3-12-88	3-14-88
Date Analyzed:	4-12-88	4-12-88

Compound	Detection Limits ug/L	ANALYTICAL RESULTS	
		ug/L	ug/L
1,3-Dichlorobenzene	2	NO	NO
1,4-Dichlorobenzene	2	NO	NO
Hexachloroethane	2	NO	NO
Bis(2-chloroethyl)ether	6	NO	NO
1,2-Dichlorobenzene	2	NO	NO
N-Nitrosodimethylamine	25	NO	NO
Bis(2-chloroisopropyl)ether	6	NO	NO
N-Nitrosodi-n-propyl amine	25	NO	NO
Hexachlorobutadiene	1	NO	NO
1,2,4-Trichlorobenzene	2	NO	NO
Nitrobenzene	2	NO	NO
Isophorone	2	NO	NO
Naphthalene	2	NO	NO
Bis(2-chloroethoxy)methane	5	NO	NO
2-Chloronaphthalene	2	NO	NO
Hexachlorocyclopentadiene	25	NO	NO
Acenaphthylene	4	NO	NO
Acenaphthene	2	NO	NO
Dimethyl phthalate	2	NO	NO
2,6-Dinitrotoluene	2	NO	NO
Fluorene	2	NO	NO
2,4-Dinitrotoluene	2	NO	NO
Diethyl phthalate	2	NO	NO
N-Nitrosodiphenylamine	2	NO	NO
Hexachlorobenzene	2	NO	NO

Priority Pollutant Analysis
Base Neutrals - EPA 625
Matrix: Water
(continued)

page 2 of 4

Date Received: March 9, 1988
Date Reported: April 19, 1988

P.O. No.:
Job No. : AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329
ATTN: Mr. Jim Duncan

Lab Number:	880567	880568
Sample Number:	UF, ET-1, GW1, ES	UF, ET-2, GW1, ES
Date Sampled:	3-8-88	3-8-88
Time Sampled:	1115	1345
Date Extracted:	3-12-88	3-14-88
Date Analyzed:	4-12-88	4-12-88

Compound	Detection Limit ug/L	ANALYTICAL RESULTS	
		ug/L	ug/L
Phenanthrene	5	NO	NO
Anthracene	2	NO	NO
Dibutyl phthalate	3	NO	NO
Fluoranthene	2	NO	NO
4-Chlorophenyl phenyl ether	4	NO	NO
Pyrene	2	NO	NO
Butyl Benzyl phthalate	3	NO	NO
Bis(2-ethylhexyl) phthalate	3	NO	NO
Chrysene	3	NO	NO
4-Bromophenyl phenyl ether	2	NO	NO
Benzo(a)anthracene	8	NO	NO
Di-n-octylphthalate	3	NO	NO
Benzo(b)fluoranthene	5	NO	NO
Benzo(k)fluoranthene	3	NO	NO
Benzidine	60	NO	NO
3,3'-Dichlorobenzidine	40	NO	NO
Benzo(a)pyrene	3	NO	NO
Indeno(1,2,3-cd)pyrene	4	NO	NO
Dibenzo(a,h)anthracene	3	NO	NO
Benzo(ghi)perylene	4	NO	NO

Priority Pollutant Analysis
Pesticides and PCBs - EPA 625
Matrix: Water

page 3 of 4

Date Received: March 9, 1988
Date Reported: April 19, 1988

P.O. No.:
Job No. : AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329
ATTN: Mr. Jim Duncan

Lab Number:	880567	880568
Sample No.:	UF, ET-1, GW1, ES	UF, ET-2, GW1, ES
Date Sampled:	3-8-88	3-8-88
Time Sampled:	1115	1345
Date Extracted:	3-12-88	3-14-88
Date Analyzed:	4-12-88	4-12-88

Compound	Detection Limits	ANALYTICAL RESULTS	
	ug/L	ug/L	ug/L
Alpha-BHC	--*	NO	NO
Gamma-BHC	---	NO	NO
Beta-BHC	4	NO	NO
Heptachlor	2	NO	NO
Delta-BHC	3	NO	NO
Aldrin	2	NO	NO
Heptachlor epoxide	2	NO	NO
Endosulfan I	--*	NO	NO
Dieldrin	3	NO	NO
4,4'-DDE	6	NO	NO
Endrin	--*	NO	NO
Endosulfan II	--*	NO	NO
4,4'-DDD	3	NO	NO
4,4'-DDT	5	NO	NO
Endosulfan Sulfate	6	NO	NO
Endrin aldehyde	--*	NO	NO
Chlordane	40	NO	NO
Toxaphene	40	NO	NO
PCB-1016	40	NO	NO
PCB-1221	40	NO	NO
PCB-1232	40	NO	NO
PCB-1242	40	NO	NO
PCB-1248	40	NO	NO
PCB-1254	40	NO	NO
PCB-1260	40	NO	NO

* Detection limits have not yet been determined for these compounds

Priority Pollutant Analysis
Acid Extractables -- EPA 625
Matrix: Water

page 4 of 4

Date Received: March 9, 1988
Date Reported: April 19, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329
ATTN: Mr. Jim Duncan

Lab Number:	880567	880568
Sample No.:	UF, ET-1, GW1, ES	UF, ET-2, GW1, ES
Date Sampled:	3-8-88	3-8-88
Time Sampled:	1115	1345
Date Extracted:	3-12-88	3-14-88
Date Analyzed:	4-12-88	4-12-88

Compound	Detection Limits ug/L	ANALYTICAL RESULTS	
		ug/L	ug/L
2-Chlorophenol	3	66	66
2-Nitrophenol	4	66	66
Phenol	2	66	66
2,4-Dimethylphenol	3	66	66
2,4-Dichlorophenol	3	66	66
2,4,6-Trichlorophenol	3	66	66
4-Chloro-3-methylphenol	3	66	66
2,4-Dinitrophenol	40	66	66
2-Methyl-4,6-Dinitrophenol	20	66	66
Pentachlorophenol	4	66	66
4-Nitrophenol	3	66	66

Auna Kuek

Analyst

RWB

Approved By

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

CASE NARRATIVE
Work Order Number 534
Sample No. 88010568

Matrix effects caused the relative percent difference for 4-chloro-3-methylphenol to be higher than EPA recommended guidelines. Analysis of spiked blanks showed the laboratory to be in control.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - EPA 625
Matrix: Water

page 1 of 4

Date Received: March 9, 1988
Date Reported: April 19, 1988

P.O. No.:
Job No. : AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329
ATTN: Mr. Jim Duncan

Lab Number: 880569
Sample No.: UF, ET-3, GW1, ES
Date Sampled: 3-8-88
Time Sampled: 1500
Date Extracted: 3-12-88
Date Analyzed: 4-13-88

Compound	Detection	ANALYTICAL RESULTS	
	Limits		
	ug/L	ug/L	
1,3-Dichlorobenzene	2	NO	
1,4-Dichlorobenzene	2	NO	
Hexachloroethane	2	NO	
Bis(2-chloroethyl)ether	6	NO	
1,2-Dichlorobenzene	2	NO	
N-Nitrosodimethylamine	25	NO	
Bis(2-chloroisopropyl)ether	6	NO	
N-Nitrosodi-n-propyl amine	25	NO	
Hexachlorobutadiene	1	NO	
1,2,4-Trichlorobenzene	2	NO	
Nitrobenzene	2	NO	
Isophorone	2	NO	
Naphthalene	2	51	
Bis(2-chloroethoxy)methane	5	NO	
2-Chloronaphthalene	2	NO	
Hexachlorocyclopentadiene	25	NO	
Acenaphthylene	4	NO	
Acenaphthene	2	NO	
Dimethyl phthalate	2	NO	
2,6-Dinitrotoluene	2	NO	
Fluorene	2	NO	
2,4-Dinitrotoluene	6	NO	
Diethyl phthalate	2	NO	
N-Nitrosodiphenylamine	2	NO	
Hexachlorobenzene	2	NO	

Priority Pollutant Analysis
Base Neutrals - EPA 625
Matrix: Water
(continued)

page 2 of 4

Date Received: March 9, 1988
Date Reported: April 19, 1988

P.O. No.:
Job No. : AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329
ATTN: Mr. Jim Duncan

Lab Number: 880569
Sample No.: UF, ET-3, GW1, ES
Date Sampled: 3-8-88
Time Sampled: 1500
Date Extracted: 3-12-88
Date Analyzed: 4-13-88

Compound	Detection Limit ug/L	ANALYTICAL RESULTS	
		ug/L	
Phenanthrene	5	NO	
Anthracene	2	NO	
Dibutyl phthalate	3	NO	
Fluoranthene	2	NO	
4-Chlorophenyl phenyl ether	4	NO	
Pyrene	2	NO	
Butyl Benzyl phthalate	3	NO	
Bis(2-ethylhexyl) phthalate	3	28	
Chrysene	3	NO	
4-Bromophenyl phenyl ether	2	NO	
Benzo(a)anthracene	8	NO	
Di-n-octylphthalate	3	NO	
Benzo(b)fluoranthene	5	NO	
Benzo(k)fluoranthene	3	NO	
Benzidine	60	NO	
3,3'-Dichlorobenzidine	20	NO	
Benzo(a)pyrene	3	NO	
Indeno(1,2,3-cd)pyrene	4	NO	
Dibenzo(a,h)anthracene	3	NO	
Benzo(ghi)perylene	4	NO	

Priority Pollutant Analysis
Pesticides and PCBs - EPA 625
Matrix: Water

page 3 of 4

Date Received: March 9, 1988
Date Reported: April 19, 1988

P.O. No.:
Job No. : AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329
ATTN: Mr. Jim Duncan

Lab Number: 880569
Sample No.: UF, ET-3, GW1, ES
Date Sampled: 3-8-88
Time Sampled: 1500
Date Extracted: 3-12-88
Date Analyzed: 4-13-88

Compound	Detection Limits	ANALYTICAL RESULTS
	ug/L	ug/L
Alpha-BHC	---	ND
Gamma-BHC	---	ND
Beta-BHC	4	ND
Heptachlor	2	ND
Delta-BHC	3	ND
Aldrin	3	ND
Heptachlor epoxide	3	ND
Endosulfan I	---	ND
Dieldrin	3	ND
4,4'-DDE	6	ND
Endrin	---	ND
Endosulfan II	---	ND
4,4'-DDD	3	ND
4,4'-DDT	5	ND
Endosulfan Sulfate	6	ND
Endrin aldehyde	---	ND
Chlordane	40	ND
Toxaphene	40	ND
PCB-1016	40	ND
PCB-1221	40	ND
PCB-1232	40	ND
PCB-1242	40	ND
PCB-1248	40	ND
PCB-1254	40	ND
PCB-1260	40	ND

* EPA has not yet published detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- EPA 625
Matrix: Water

page 4 of 4


Date Received: March 9, 1988
Date Reported: April 19, 1988

P.O. No.:
Job No. : AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329
ATTN: Mr. Jim Duncan

Lab Number: 880569
Sample No.: UF, ET-3, GW1, ES
Date Sampled: 3-8-88
Time Sampled: 1500
Date Extracted: 3-12-88
Date Analyzed: 4-13-88

Compound	Detection	ANALYTICAL RESULTS	
	Limits		
	ug/L		ug/L
2-Chlorophenol	3		NO
2-Nitrophenol	4		NO
Phenol	2		27
2,4-Dimethylphenol	3		NO
2,4-Dichlorophenol	3		NO
2,4,6-Trichlorophenol	3		NO
4-Chloro-3-methylphenol	3		NO
2,4-Dinitrophenol	40		NO
2-Methyl-4,6-Dinitrophenol	20		NO
Pentachlorophenol	4		76
4-Nitrophenol	2		NO



Analyst



Laboratory Supervisor

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - EPA 625
Matrix: Water

page 1 of 4

Date Received: March 10, 1988
Date Reported: April 21, 1988

P.O. No.:
Job No. : AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329
ATTN: Mr. Jim Duncan

Lab Number:	88030572	88030573
Sample No.:	VF, ET-5, GW1, ES	VF, ET-4, GW1, ES
Date Sampled:	3-9-88	3-9-88
Time Sampled:	1130	1030
Date Extracted:	3-14-88	3-14-88
Date Analyzed:	4-13-88	4-13-88

Compound	Detection Limits ug/L	ANALYTICAL RESULTS	
		ug/L	ug/L
1,3-Dichlorobenzene	2	ND	ND
1,4-Dichlorobenzene	2	ND	ND
Hexachloroethane	2	ND	ND
Bis(2-chloroethyl)ether	6	ND	ND
1,2-Dichlorobenzene	2	ND	ND
N-Nitrosodimethylamine	25	ND	ND
Bis(2-chloroisopropyl)ether	6	ND	ND
N-Nitrosodi-n-propyl amine	25	ND	ND
Hexachlorobutadiene	1	ND	ND
1,2,4-Trichlorobenzene	2	ND	ND
Nitrobenzene	2	ND	ND
Isophorone	2	ND	ND
Naphthalene	2	38	55
Bis(2-chloroethoxy)methane	5	ND	ND
2-Chloronaphthalene	2	ND	ND
Hexachlorocyclopentadiene	25	ND	ND
Acenaphthylene	4	ND	ND
Acenaphthene	2	ND	ND
Dimethyl phthalate	2	ND	ND
2,6-Dinitrotoluene	2	ND	ND
Fluorene	2	ND	3
2,4-Dinitrotoluene	2	ND	ND
Diethyl phthalate	2	ND	ND
N-Nitrosodiphenylamine	2	ND	ND
Hexachlorobenzene	2	ND	ND

Priority Pollutant Analysis
Base Neutrals - EPA 625
Matrix: Water
(continued)

page 2 of 4

Date Received: March 10, 1988
Date Reported: April 21, 1988

P.O. No.:
Job No. : AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329
ATTN: Mr. Jim Duncan

Lab Number:	88030572	88030573
Sample Number:	VF, ET-5, GW1, ES	VF, ET-4, GW1, ES
Date Sampled:	3-9-88	3-9-88
Time Sampled:	1130	1030
Date Extracted:	3-14-88	3-14-88
Date Analyzed:	4-13-88	4-13-88

Compound	Detection Limit ug/L	ANALYTICAL RESULTS	
		ug/L	ug/L
Phenanthrene	5	ND	ND
Anthracene	2	ND	ND
Dibutyl phthalate	3	ND	ND
Fluoranthene	2	ND	ND
4-Chlorophenyl phenyl ether	4	ND	ND
Pyrene	2	ND	ND
Butyl Benzyl phthalate	3	ND	ND
Bis(2-ethylhexyl) phthalate	3	ND	1100
Chrysene	3	ND	ND
4-Bromophenyl phenyl ether	2	ND	ND
Benzo(a)anthracene	8	ND	ND
Di-n-octylphthalate	3	ND	ND
Benzo(b)fluoranthene	5	ND	ND
Benzo(k)fluoranthene	3	ND	ND
Benzidine	60	ND	ND
3,3'-Dichlorobenzidine	40	ND	ND
Benzo(a)pyrene	3	ND	ND
Indeno(1,2,3-cd)pyrene	4	ND	ND
Dibenzo(a,h)anthracene	3	ND	ND
Benzo(ghi)perylene	4	ND	ND

Priority Pollutant Analysis
Pesticides and PCBs - EPA 625
Matrix: Water

page 3 of 4

Date Received: March 10, 1988
Date Reported: April 21, 1988

P.O. No.:
Job No. : AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329
ATTN: Mr. Jim Duncan

Lab Number:	88030572	88030573
Sample No.:	VF, ET-5, GW1, ES	VF, ET-4, GW1, ES
Date Sampled:	3-9-88	3-9-88
Time Sampled:	1130	1030
Date Extracted:	3-14-88	3-14-88
Date Analyzed:	4-13-88	4-13-88

Compound	Detection Limits ug/L	ANALYTICAL RESULTS	
		ug/L	ug/L
Alpha-BHC	--*	ND	ND
Gamma-BHC	—*	ND	ND
Beta-BHC	4	ND	ND
Heptachlor	2	ND	ND
Delta-BHC	3	ND	ND
Aldrin	2	ND	ND
Heptachlor epoxide	2	ND	ND
Endosulfan I	--*	ND	ND
Dieldrin	3	ND	ND
4,4'-DDE	6	ND	ND
Endrin	--*	ND	ND
Endosulfan II	--*	ND	ND
4,4'-DDD	3	ND	ND
4,4'-DDT	5	ND	ND
Endosulfan Sulfate	6	ND	ND
Endrin aldehyde	--*	ND	ND
Chlordane	40	ND	ND
Toxaphene	40	ND	ND
PCB-1016	40	ND	ND
PCB-1221	40	ND	ND
PCB-1232	40	ND	ND
PCB-1242	40	ND	ND
PCB-1248	40	ND	ND
PCB-1254	40	ND	ND
PCB-1260	40	ND	ND

* Detection limits have not yet been determined for these compounds

Priority Pollutant Analysis
Acid Extractables -- EPA 625
Matrix: Water

page 4 of 4

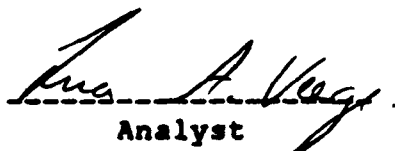
Date Received: March 10, 1988
Date Reported: April 21, 1988

P.O. No.:
Job No. : AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329
ATTN: Mr. Jim Duncan

Lab Number:	88030572	88030573
Sample No.:	VF, ET-5, GW1, ES	VF, ET-4, GW1, ES
Date Sampled:	3-9-88	3-9-88
Time Sampled:	1130	1030
Date Extracted:	3-14-88	3-14-88
Date Analyzed:	4-13-88	4-13-88

Compound	Detection Limits ug/L	ANALYTICAL RESULTS	
		ug/L	ug/L
2-Chlorophenol	3	ND	ND
2-Nitrophenol	4	ND	ND
Phenol	2	28	ND
2,4-Dimethylphenol	3	ND	ND
2,4-Dichlorophenol	3	ND	ND
2,4,6-Trichlorophenol	3	ND	ND
4-Chloro-3-methylphenol	3	ND	ND
2,4-Dinitrophenol	40	ND	ND
2-Methyl-4,6-Dinitrophenol	20	ND	ND
Pentachlorophenol	4	ND	ND
4-Nitrophenol	3	ND	ND


Analyst


Approved By

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - EPA 625
Matrix: Water

page 1 of 4

Date Received: March 10, 1988
Date Reported: April 21, 1988

P.O. No.:
Job No. : AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329
ATTN: Mr. Jim Duncan

Lab Number: 88030576
Sample No.: VF,ET-6,GW1,ES
Date Sampled: 3-9-88
Time Sampled: 0930
Date Extracted: 3-14-88
Date Analyzed: 4-14-88

Compound	Detection	ANALYTICAL RESULTS
	Limits ug/L	
1,3-Dichlorobenzene	2	ND
1,4-Dichlorobenzene	2	ND
Hexachloroethane	2	ND
Bis(2-chloroethyl)ether	6	ND
1,2-Dichlorobenzene	2	ND
N-Nitrosodimethylamine	25	ND
Bis(2-chloroisopropyl)ether	6	ND
N-Nitrosodi-n-propyl amine	25	ND
Hexachlorobutadiene	1	ND
1,2,4-Trichlorobenzene	2	ND
Nitrobenzene	2	ND
Isophorone	2	ND
Naphthalene	2	ND
Bis(2-chloroethoxy)methane	5	ND
2-Chloronaphthalene	2	ND
Hexachlorocyclopentadiene	25	ND
Acenaphthylene	4	ND
Acenaphthene	2	ND
Dimethyl phthalate	2	ND
2,6-Dinitrotoluene	2	ND
Fluorene	2	ND
2,4-Dinitrotoluene	6	ND
Diethyl phthalate	2	ND
N-Nitrosodiphenylamine	2	ND
Hexachlorobenzene	2	ND

Priority Pollutant Analysis
Base Neutrals - EPA 625
Matrix: Water
(continued)

page 2 of 4

Date Received: March 10, 1988
Date Reported: April 21, 1988

P.O. No.:
Job No. : AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329
ATTN: Mr. Jim Duncan

Lab Number: 88030576
Sample No.: VF,ET-6,GW1,ES
Date Sampled: 3-9-88
Time Sampled: 0930
Date Extracted: 3-14-88
Date Analyzed: 4-14-88

Compound	Detection	ANALYTICAL RESULTS	
	Limit ug/L	ug/L	
Phenanthrene	5	ND	
Anthracene	2	ND	
Dibutyl phthalate	3	ND	
Fluoranthene	2	ND	
4-Chlorophenyl phenyl ether	4	ND	
Pyrene	2	ND	
Butyl Benzyl phthalate	3	ND	
Bis(2-ethylhexyl) phthalate	3	ND	
Chrysene	3	ND	
4-Bromophenyl phenyl ether	2	ND	
Benzo(a)anthracene	8	ND	
Di-n-octylphthalate	3	ND	
Benzo(b)fluoranthene	5	ND	
Benzo(k)fluoranthene	3	ND	
Benzidine	60	ND	
3,3'-Dichlorobenzidine	20	ND	
Benzo(a)pyrene	3	ND	
Indeno(1,2,3-cd)pyrene	4	ND	
Dibenzo(a,h)anthracene	3	ND	
Benzo(ghi)perylene	4	ND	

Priority Pollutant Analysis
Pesticides and PCBs - EPA 625
Matrix: Water

page 3 of 4

Date Received: March 10, 1988
Date Reported: April 21, 1988

P.O. No.:
Job No. : AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329
ATTN: Mr. Jim Duncan

Lab Number: 88030576
Sample No.: VP,ET-6,GW1,ES
Date Sampled: 3-9-88
Time Sampled: 0930
Date Extracted: 3-14-88
Date Analyzed: 4-14-88

Compound	Detection	ANALYTICAL RESULTS
	Limits ug/L	ug/L
Alpha-BHC	--*	ND
Gamma-BHC	—*	ND
Beta-BHC	4	ND
Heptachlor	2	ND
Delta-BHC	3	ND
Aldrin	3	ND
Heptachlor epoxide	3	ND
Endosulfan I	--*	ND
Dieldrin	3	ND
4,4'-DDE	6	ND
Endrin	--*	ND
Endosulfan II	--*	ND
4,4'-DDD	3	ND
4,4'-DDT	5	ND
Endosulfan Sulfate	6	ND
Endrin aldehyde	--*	ND
Chlordane	40	ND
Toxaphene	40	ND
PCB-1016	40	ND
PCB-1221	40	ND
PCB-1232	40	ND
PCB-1242	40	ND
PCB-1248	40	ND
PCB-1254	40	ND
PCB-1260	40	ND

* EPA has not yet published detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- EPA 625
Matrix: Water

page 4 of 4

Date Received: March 10, 1988
Date Reported: April 21, 1988

P.O. No.:
Job No. : AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329
ATTN: Mr. Jim Duncan

Lab Number: 88030576
Sample No.: VF,ET-6,GW1,ES
Date Sampled: 3-9-88
Time Sampled: 0930
Date Extracted: 3-14-88
Date Analyzed: 4-14-88

Compound	Detection	ANALYTICAL RESULTS
	Limits ug/L	ug/L
2-Chlorophenol	3	ND
2-Nitrophenol	4	ND
Phenol	2	ND
2,4-Dimethylphenol	3	ND
2,4-Dichlorophenol	3	ND
2,4,6-Trichlorophenol	3	ND
4-Chloro-3-methylphenol	3	ND
2,4-Dinitrophenol	40	ND
2-Methyl-4,6-Dinitrophenol	20	ND
Pentachlorophenol	4	ND
4-Nitrophenol	2	ND


Analyst


Laboratory Supervisor

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

CASE NARRATIVE
Work Order Number 138
Sample Nos. 88030972 - 88030976

Matrix effects caused the relative percent difference for 4-chloro-3-methylphenol to be higher than EPA recommended guidelines. Analysis of spiked blanks showed the laboratory to be in control.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - EPA 625
Matrix: Water

page 1 of 4

Date Received: March 10, 1988

P.O. No.:

Date Reported: April 21, 1988

Job No. : AT077

FOR: ES:Atlanta/Volk ANGB

Address: 57 Executive Park S.E., Suite 590

Atlanta, Georgia 30329

ATTN: Mr. Jim Duncan

Lab Number:

88030574

88030575

Sample No.:

VF,13-W1,GW1,ES

VF,ET-7,GW1,ES

Date Sampled:

3-9-88

3-9-88

Time Sampled:

0800

0900

Date Extracted:

3-14-88

3-14-88

Date Analyzed:

4-13-88

4-14-88

Compound

Detection

Limits

ANALYTICAL RESULTS

ug/L

ug/L

ug/L

1,3-Dichlorobenzene

2

ND

ND

1,4-Dichlorobenzene

2

ND

ND

Hexachloroethane

2

ND

ND

Bis(2-chloroethyl)ether

6

ND

ND

1,2-Dichlorobenzene

2

ND

ND

N-Nitrosodimethylamine

25

ND

ND

Bis(2-chloroisopropyl)ether

6

ND

ND

N-Nitrosodi-n-propyl amine

25

ND

ND

Hexachlorobutadiene

1

ND

ND

1,2,4-Trichlorobenzene

2

ND

ND

Nitrobenzene

2

ND

ND

Isophorone

2

ND

ND

Naphthalene

2

ND

26

Bis(2-chloroethoxy)methane

5

ND

ND

2-Chloronaphthalene

2

ND

ND

Hexachlorocyclopentadiene

25

ND

ND

Acenaphthylene

4

ND

ND

Acenaphthene

2

ND

ND

Dimethyl phthalate

2

ND

ND

2,6-Dinitrotoluene

2

ND

ND

Fluorene

2

ND

ND

2,4-Dinitrotoluene

2

ND

ND

Diethyl phthalate

2

ND

ND

N-Nitrosodiphenylamine

2

ND

ND

Hexachlorobenzene

2

ND

ND

Priority Pollutant Analysis
Base Neutrals - EPA 625
Matrix: Water
(continued)

page 2 of 4

Date Received: March 10, 1988
Date Reported: April 21, 1988

P.O. No.:
Job No. : AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329
ATTN: Mr. Jim Duncan

Lab Number:	88030574	88030575
Sample Number:	VF,13-W1,GW1,ES	VF,ET-7,GW1,ES
Date Sampled:	3-9-88	3-9-88
Time Sampled:	0800	0900
Date Extracted:	3-14-88	3-14-88
Date Analyzed:	4-13-88	4-14-88

Compound	Detection Limit ug/L	ANALYTICAL RESULTS	
		ug/L	ug/L
Phenanthrene	5	ND	ND
Anthracene	2	ND	ND
Dibutyl phthalate	3	ND	ND
Fluoranthene	2	ND	ND
4-Chlorophenyl phenyl ether	4	ND	ND
Pyrene	2	ND	ND
Butyl Benzyl phthalate	3	ND	ND
Bis(2-ethylhexyl) phthalate	3	ND	ND
Chrysene	3	ND	ND
4-Bromophenyl phenyl ether	2	ND	ND
Benzo(a)anthracene	8	ND	ND
Di-n-octylphthalate	3	ND	ND
Benzo(b)fluoranthene	5	ND	ND
Benzo(k)fluoranthene	3	ND	ND
Benzidine	60	ND	ND
3,3'-Dichlorobenzidine	40	ND	ND
Benzo(a)pyrene	3	ND	ND
Indeno(1,2,3-cd)pyrene	4	ND	ND
Dibenzo(a,h)anthracene	3	ND	ND
Benzo(ghi)perylene	4	ND	ND

Priority Pollutant Analysis
Pesticides and PCBs - EPA 625
Matrix: Water

page 3 of 4

Date Received: March 10, 1988
Date Reported: April 21, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329
ATTN: Mr. Jim Duncan

Lab Number:	88030574	88030575
Sample No.:	VF,13-W1,GW1,ES	VF,ET-7,GW1,ES
Date Sampled:	3-9-88	3-9-88
Time Sampled:	0800	0900
Date Extracted:	3-14-88	3-14-88
Date Analyzed:	4-13-88	4-14-88

Compound	Detection Limits ug/L	ANALYTICAL RESULTS	
		ug/L	ug/L
Alpha-BHC	--*	ND	ND
Gamma-BHC	---	ND	ND
Beta-BHC	4	ND	ND
Heptachlor	2	ND	ND
Delta-BHC	3	ND	ND
Aldrin	2	ND	ND
Heptachlor epoxide	2	ND	ND
Endosulfan I	--*	ND	ND
Dieldrin	3	ND	ND
4,4'-DDE	6	ND	ND
Endrin	--*	ND	ND
Endosulfan II	--*	ND	ND
4,4'-DDD	3	ND	ND
4,4'-DDT	5	ND	ND
Endosulfan Sulfate	6	ND	ND
Endrin aldehyde	--*	ND	ND
Chlordane	40	ND	ND
Toxaphene	40	ND	ND
PCB-1016	40	ND	ND
PCB-1221	40	ND	ND
PCB-1232	40	ND	ND
PCB-1242	40	ND	ND
PCB-1248	40	ND	ND
PCB-1254	40	ND	ND
PCB-1260	40	ND	ND

* Detection limits have not yet been determined for these compounds

Priority Pollutant Analysis
Acid Extractables -- EPA 625
Matrix: Water

page 4 of 4

Date Received: March 10, 1988
Date Reported: April 21, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329
ATTN: Mr. Jim Duncan

Lab Number:	88030574	88030575
Sample No.:	VF,13-W1,GW1,ES	VF,ET-7,GW1,ES
Date Sampled:	3-9-88	3-9-88
Time Sampled:	0800	0900
Date Extracted:	3-14-88	3-14-88
Date Analyzed:	4-13-88	4-14-88

Compound	Detection Limits ug/L	ANALYTICAL RESULTS	
		ug/L	ug/L
2-Chlorophenol	3	ND	ND
2-Nitrophenol	4	ND	ND
Phenol	2	ND	3
2,4-Dimethylphenol	3	ND	ND
2,4-Dichlorophenol	3	ND	ND
2,4,6-Trichlorophenol	3	ND	ND
4-Chloro-3-methylphenol	3	ND	ND
2,4-Dinitrophenol	40	ND	ND
2-Methyl-4,6-Dinitrophenol	20	ND	ND
Pentachlorophenol	4	ND	5
4-Nitrophenol	3	ND	ND


Analyst


Approved By

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - EPA 625
Matrix: Water

page 1 of 4

Date Received: March 5, 1988
Date Reported: March 25, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S. E., Suite 590
Atlanta, Georgia 30329
ATTN: Mr. Jim Duncan

Lab Number: 880540
Sample No.: UF, 1-W1, GW1, ES
Date Sampled: 3-04-88
Time Sampled: 1545
Date Extracted: 3-07-88
Date Analyzed: 3-17-88

Compound	Detection Limits ug/L	ANALYTICAL RESULTS	
		ug/L	
1,3-Dichlorobenzene	2	ND	
1,4-Dichlorobenzene	2	ND	
Hexachloroethane	2	ND	
Bis(2-chloroethyl)ether	6	ND	
1,2-Dichlorobenzene	2	ND	
N-Nitrosodimethylamine	25	ND	
Bis(2-chloroisopropyl)ether	6	ND	
N-Nitrosodi-n-propyl amine	25	ND	
Hexachlorobutadiene	1	ND	
1,2,4-Trichlorobenzene	2	ND	
Nitrobenzene	2	ND	
Isophorone	2	ND	
Naphthalene	2	2.3	
Bis(2-chloroethoxy)methane	5	ND	
2-Chloronaphthalene	2	ND	
Hexachlorocyclopentadiene	25	ND	
Acenaphthylene	4	ND	
Acenaphthene	2	ND	
Dimethyl phthalate	2	ND	
2,6-Dinitrotoluene	2	ND	
Fluorene	2	ND	
2,4-Dinitrotoluene	6	ND	
Diethyl phthalate	2	ND	
N-Nitrosodiphenylamine	2	ND	
Hexachlorobenzene	2	ND	

Priority Pollutant Analysis
Base Neutrals - EPA 625
Matrix: Water
(continued)

page 2 of 4

Date Received: March 5, 1988
Date Reported: March 25, 1988

P.O. No.:
Job No.: AT077

FOR: ES: Atlanta/Volk ANGB
Address: 57 Executive Park S. E., Suite 590
Atlanta, Georgia 30329
ATTN: Mr. Jim Duncan

Lab Number: 880540
Sample No.: UF, 1-W1, GW1, ES
Date Sampled: 3-04-88
Time Sampled: 1545
Date Extracted: 3-07-88
Date Analyzed: 3-17-88

Compound	Detection	ANALYTICAL RESULTS	
	Limit ug/L	ug/L	
Phenanthrene	5	ND	
Anthracene	2	ND	
Dibutyl phthalate	3	ND	
Fluoranthene	2	ND	
4-Chlorophenyl phenyl ether	4	ND	
Pyrene	2	ND	
Butyl Benzyl phthalate	3	ND	
Bis(2-ethylhexyl) phthalate	3	9.0	
Chrysene	3	ND	
4-Bromophenyl phenyl ether	2	ND	
Benzo(a)anthracene	8	ND	
Di-n-octylphthalate	3	ND	
Benzo(b)fluoranthene	5	ND	
Benzo(k)fluoranthene	3	ND	
Benzidine	60	ND	
3,3'-Dichlorobenzidine	20	ND	
Benzo(a)pyrene	3	ND	
Indeno(1,2,3-cd)pyrene	4	ND	
Dibenzo(a,h)anthracene	3	ND	
Benzo(ghi)perylene	4	ND	

Priority Pollutant Analysis
Pesticides and PCBs - EPA 625
Matrix: Water

page 3 of 4

Date Received: March 5, 1988
Date Reported: March 25, 1988

P.O. No.:
Job No.: AT077

FOR: ES: Atlanta/Volk ANGB
Address: 57 Executive Park S. E., Suite 590
Atlanta, Georgia 30329
ATTN: Mr. Jim Duncan

Lab Number: 880540
Sample No.: UF, 1-W1, GW1, ES
Date Sampled: 3-04-88
Time Sampled: 1545
Date Extracted: 3-07-88
Date Analyzed: 3-17-88

Compound	Detection	ANALYTICAL RESULTS
	Limits	
	ug/L	ug/L
Alpha-BHC	--*	ND
Gamma-BHC	—*	ND
Beta-BHC	4	ND
Heptachlor	2	ND
Delta-BHC	3	ND
Aldrin	3	ND
Heptachlor epoxide	3	ND
Endosulfan I	--*	ND
Dieldrin	3	ND
4,4'-DDE	6	ND
Endrin	--*	ND
Endosulfan II	--*	ND
4,4'-DDD	3	ND
4,4'-DDT	5	ND
Endosulfan Sulfate	6	ND
Endrin aldehyde	--*	ND
Chlordane	40	ND
Toxaphene	40	ND
PCB-1016	40	ND
PCB-1221	40	ND
PCB-1232	40	ND
PCB-1242	40	ND
PCB-1248	40	ND
PCB-1254	40	ND
PCB-1260	40	ND

* EPA has not yet published detection limits for these compounds.

Priority Pollutant Analysis
Acid Extractables -- EPA 625
Matrix: Water

page 4 of 4

Date Received: March 5, 1988
Date Reported: March 25, 1988

P.O. No.:
Job No.: AT077

FOR: ES: Atlanta/Volk ANGB
Address: 57 Executive Park S. E., Suite 590
Atlanta, Georgia 30329
ATTN: Mr. Jim Duncan

Lab Number: 880540
Sample No.: UF, 1-GW1, GW1, ES
Date Sampled: 3-04-88
Time Sampled: 1545
Date Extracted: 3-07-88
Date Analyzed: 3-17-88

Compound	Detection	ANALYTICAL RESULTS
	Limits ug/L	ug/L
2-Chlorophenol	3	ND
2-Nitrophenol	4	ND
Phenol	2	ND
2,4-Dimethylphenol	3	ND
2,4-Dichlorophenol	3	ND
2,4,6-Trichlorophenol	3	ND
4-Chloro-3-methylphenol	3	ND
2,4-Dinitrophenol	40	ND
2-Methyl-4,6-Dinitrophenol	20	ND
Pentachlorophenol	4	ND
4-Nitrophenol	2	ND

Laura Kuek
Analyst

AWBryton
Laboratory Supervisor

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - EPA 625
Matrix: Water

page 1 of 4

Date Received: March 9, 1988
Date Reported: April 19, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329
ATTN: Mr. Jim Duncan

Lab Number:	880565	880566
Sample No.:	VF, 12-W3, GW1, ES	VF, 1-W2, GW1, ES
Date Sampled:	3-8-88	3-8-88
Time Sampled:	0800	0930
Date Extracted:	3-12-88	3-12-88
Date Analyzed:	4-12-88	4-08-88

Compound	Detection Limits ug/L	ANALYTICAL RESULTS	
		ug/L	ug/L
1,3-Dichlorobenzene	2	NO	NO
1,4-Dichlorobenzene	2	NO	NO
Hexachloroethane	2	NO	NO
Bis(2-chloroethyl)ether	6	NO	NO
1,2-Dichlorobenzene	2	NO	NO
N-Nitrosodimethylamine	25	NO	NO
Bis(2-chloroisopropyl)ether	6	NO	NO
N-Nitrosodi-n-propyl amine	25	NO	NO
Hexachlorobutadiene	1	NO	NO
1,2,4-Trichlorobenzene	2	NO	NO
Nitrobenzene	2	NO	NO
Isophorone	2	NO	NO
Naphthalene	2	NO	NO
Bis(2-chloroethoxy)methane	5	NO	NO
2-Chloronaphthalene	2	NO	NO
Hexachlorocyclopentadiene	25	NO	NO
Acenaphthylene	4	NO	NO
Acenaphthene	2	NO	NO
Dimethyl phthalate	2	NO	NO
2,6-Dinitrotoluene	2	NO	NO
Fluorene	2	NO	NO
2,4-Dinitrotoluene	2	NO	NO
Diethyl phthalate	2	NO	NO
N-Nitrosodiphenylamine	2	NO	NO
Hexachlorobenzene	2	NO	NO

Priority Pollutant Analysis
Base Neutrals - EPA 625
Matrix: Water
(continued)

page 2 of 4

Date Received: March 9, 1988
Date Reported: April 19, 1988

P.O. No.:
Job No. : AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329
ATTN: Mr. Jim Duncan

Lab Number:	880565	880566
Sample Number:	UF, 12-W3, GW1, ES	UF, 1-W2, GW1, ES
Date Sampled:	3-8-88	3-8-88
Time Sampled:	0800	0930
Date Extracted:	3-12-88	3-12-88
Date Analyzed:	4-12-88	4-08-88

Compound	Detection Limit ug/L	ANALYTICAL RESULTS	
		ug/L	ug/L
Phenanthrene	5	NO	NO
Anthracene	2	NO	NO
Dibutyl phthalate	3	NO	NO
Fluoranthene	2	NO	NO
4-Chlorophenyl phenyl ether	4	NO	NO
Pyrene	2	NO	NO
Butyl Benzyl phthalate	3	NO	NO
Bis(2-ethylhexyl) phthalate	3	NO	NO
Chrysene	3	NO	NO
4-Bromophenyl phenyl ether	2	NO	NO
Benzo(a)anthracene	8	NO	NO
Di-n-octylphthalate	3	NO	NO
Benzo(b)fluoranthene	5	NO	NO
Benzo(k)fluoranthene	3	NO	NO
Benzidine	60	NO	NO
3,3'-Dichlorobenzidine	40	NO	NO
Benzo(a)pyrene	3	NO	NO
Indeno(1,2,3-cd)pyrene	4	NO	NO
Dibenzo(a,h)anthracene	3	NO	NO
Benzo(ghi)perylene	4	NO	NO

Priority Pollutant Analysis
Pesticides and PCBs - EPA 625
Matrix: Water

page 3 of 4

Date Received: March 9, 1988
Date Reported: April 19, 1988

P.O. No.:
Job No. : AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329
ATTN: Mr. Jim Duncan

Lab Number:	880565	880566
Sample No.:	UF, 12-W3, GW1, ES	UF, 1-W2, GW1, ES
Date Sampled:	3-8-88	3-8-88
Time Sampled:	0800	0930
Date Extracted:	3-12-88	3-12-88
Date Analyzed:	4-12-88	4-08-88

Compound	Detection Limits	ANALYTICAL RESULTS	
	ug/L	ug/L	ug/L
Alpha-BHC	--*	NO	NO
Gamma-BHC	---	NO	NO
Beta-BHC	4	NO	NO
Heptachlor	2	NO	NO
Delta-BHC	3	NO	NO
Aldrin	2	NO	NO
Heptachlor epoxide	2	NO	NO
Endosulfan I	--*	NO	NO
Dieldrin	3	NO	NO
4,4'-DDE	6	NO	NO
Endrin	--*	NO	NO
Endosulfan II	--*	NO	NO
4,4'-DDD	3	NO	NO
4,4'-DDT	5	NO	NO
Endosulfan Sulfate	6	NO	NO
Endrin aldehyde	--*	NO	NO
Chlordane	40	NO	NO
Toxaphene	40	NO	NO
PCB-1016	40	NO	NO
PCB-1221	40	NO	NO
PCB-1232	40	NO	NO
PCB-1242	40	NO	NO
PCB-1248	40	NO	NO
PCB-1254	40	NO	NO
PCB-1260	40	NO	NO

* Detection limits have not yet been determined for these compounds

Priority Pollutant Analysis
Acid Extractables -- EPA 625
Matrix: Water

page 4 of 4

Date Received: March 9, 1988
Date Reported: April 19, 1988

P.O. No.:
Job No. : AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S.E., Suite 590
Atlanta, Georgia 30329
ATTN: Mr. Jim Duncan

Lab Number:	880565	880566
Sample No.:	UF, 12-W3, GW1, ES	UF, 1-W2, GW1, ES
Date Sampled:	3-8-88	3-8-88
Time Sampled:	0800	0930
Date Extracted:	3-12-88	3-12-88
Date Analyzed:	4-12-88	4-08-88

Compound	Detection Limits ug/L	ANALYTICAL RESULTS	
		ug/L	ug/L
2-Chlorophenol	3	NO	NO
2-Nitrophenol	4	NO	NO
Phenol	2	NO	NO
2,4-Dimethylphenol	3	NO	NO
2,4-Dichlorophenol	3	NO	NO
2,4,6-Trichlorophenol	3	NO	NO
4-Chloro-3-methylphenol	3	NO	NO
2,4-Dinitrophenol	40	NO	NO
2-Methyl-4,6-Dinitrophenol	20	NO	NO
Pentachlorophenol	4	NO	NO
4-Nitrophenol	3	NO	NO

Laura Kuck

Analyst

RLB

Approved By

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - EPA 625
Matrix: Water

page 1 of 4

Date Received: March 8, 1988
Date Reported: April 12, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park, S.E., Suite 590
Atlanta, Georgia 30329
ATTN: Mr. Jim Duncan

Lab Number:	880553	880554
Sample No.:	UF, 2-2, SW1, ES	UF, 1-W3, GW1, ES
Date Sampled:	3-7-88	3-6-88
Time Sampled:	1500	1530
Date Extracted:	3-11-88	3-11-88
Date Analyzed:	4-11-88	4-11-88

Compound	Detection Limits ug/L	ANALYTICAL RESULTS	
		ug/L	ug/L
1,3-Dichlorobenzene	2	ND	ND
1,4-Dichlorobenzene	2	ND	ND
Hexachloroethane	2	ND	ND
Bis(2-chloroethyl)ether	6	ND	ND
1,2-Dichlorobenzene	2	ND	ND
N-Nitrosodimethylamine	25	ND	ND
Bis(2-chloroisopropyl)ether	6	ND	ND
N-Nitrosodi-n-propyl amine	25	ND	ND
Hexachlorobutadiene	1	ND	ND
1,2,4-Trichlorobenzene	2	ND	ND
Nitrobenzene	2	ND	ND
Isophorone	2	ND	ND
Naphthalene	2	ND	11
Bis(2-chloroethoxy)methane	5	ND	ND
2-Chloronaphthalene	2	ND	ND
Hexachlorocyclopentadiene	25	ND	ND
Acenaphthylene	4	ND	ND
Acenaphthene	2	ND	ND
Dimethyl phthalate	2	ND	ND
2,6-Dinitrotoluene	2	ND	ND
Fluorene	2	ND	ND
2,4-Dinitrotoluene	2	ND	ND
Diethyl phthalate	2	ND	ND
N-Nitrosodiphenylamine	2	ND	ND
Hexachlorobenzene	2	ND	ND

Priority Pollutant Analysis
Base Neutrals - EPA 625
Matrix: Water
(continued)

page 2 of 4

Date Received: March 8, 1988
Date Reported: April 12, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park, S.E., Suite 590
Atlanta, Georgia 30329
ATTN: Mr. Jim Duncan

Lab Number:	880553	880554
Sample Number:	UF, 2-2, SW1, ES	UF, 1-W3, GW1, ES
Date Sampled:	3-7-88	3-6-88
Time Sampled:	1500	1530
Date Extracted:	3-11-88	3-11-88
Date Analyzed:	4-11-88	4-11-88

Compound	Detection Limit ug/L	ANALYTICAL RESULTS	
		ug/L	ug/L
Phenanthrene	5	ND	ND
Anthracene	2	ND	ND
Libutyl phthalate	3	ND	ND
Fluoranthene	2	ND	ND
4-Chlorophenyl phenyl ether	4	ND	ND
Pyrene	2	ND	ND
Butyl Benzyl phthalate	3	ND	ND
Bis(2-ethylhexyl) phthalate	3	ND	ND
Chrysene	3	ND	ND
4-Bromophenyl phenyl ether	2	ND	ND
Benzo(a)anthracene	8	ND	ND
Di-n-octylphthalate	3	ND	ND
Benzo(b)fluoranthene	5	ND	ND
Benzo(k)fluoranthene	3	ND	ND
Benzidine	60	ND	ND
3,3'-Dichlorobenzidine	40	ND	ND
Benzo(a)pyrene	3	ND	ND
Indeno(1,2,3-cd)pyrene	4	ND	ND
Dibenzo(a,h)anthracene	3	ND	ND
Benzo(ghi)perylene	4	ND	ND

Priority Pollutant Analysis
Pesticides and PCBs - EPA 625
Matrix: Water

page 3 of 4

Date Received: March 8, 1988
Date Reported: April 12, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park, S.E., Suite 590
Atlanta, Georgia 30329
ATTN: Mr. Jim Duncan

Lab Number:	880553	880554
Sample No.:	UF,2-2,SW1,ES	UF,1-W3,GW1,ES
Date Sampled:	3-7-88	3-6-88
Time Sampled:	1500	1530
Date Extracted:	3-11-88	3-11-88
Date Analyzed:	4-11-88	4-11-88

Compound	Detection Limits	ANALYTICAL RESULTS	
	ug/L	ug/L	ug/L
Alpha-BHC	--*	ND	ND
Gamma-BHC	—*	ND	ND
Beta-BHC	4	ND	ND
Heptachlor	2	ND	ND
Delta-BHC	3	ND	ND
Aldrin	2	ND	ND
Heptachlor epoxide	2	ND	ND
Endosulfan I	--*	ND	ND
Dieldrin	3	ND	ND
4,4'-DDE	6	ND	ND
Endrin	--*	ND	ND
Endosulfan II	--*	ND	ND
4,4'-DDD	3	ND	ND
4,4'-DDT	5	ND	ND
Endosulfan Sulfate	6	ND	ND
Endrin aldehyde	--*	ND	ND
Chlordane	40	ND	ND
Toxaphene	40	ND	ND
PCB-1016	40	ND	ND
PCB-1221	40	ND	ND
PCB-1232	40	ND	ND
PCB-1242	40	ND	ND
PCB-1248	40	ND	ND
PCB-1254	40	ND	ND
PCB-1260	40	ND	ND

* Detection limits have not yet been determined for these compounds

Priority Pollutant Analysis
Acid Extractables -- EPA 625
Matrix: Water

page 4 of 4

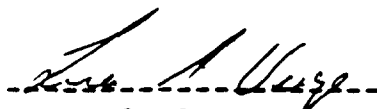
Date Received: March 8, 1988
Date Reported: April 12, 1988

P.O. No.:
Job No.: AT077

FOR: ES: Atlanta/Volk ANGB
Address: 57 Executive Park, S.E., Suite 590
Atlanta, Georgia 30329
ATTN: Mr. Jim Duncan

Lab Number:	880553	880554
Sample No.:	UF, 2-2, SW1, ES	UF, 1-W3, GW1, ES
Date Sampled:	3-7-88	3-6-88
Time Sampled:	1500	1530
Date Extracted:	3-11-88	3-11-88
Date Analyzed:	4-11-88	4-11-88

Compound	Detection Limits ug/L	ANALYTICAL RESULTS	
		ug/L	ug/L
2-Chlorophenol	3	ND	ND
2-Nitrophenol	4	ND	ND
Phenol	2	ND	11
2,4-Dimethylphenol	3	ND	4
2,4-Dichlorophenol	3	ND	ND
2,4,6-Trichlorophenol	3	ND	ND
4-Chloro-3-methylphenol	3	ND	ND
2,4-Dinitrophenol	40	ND	ND
2-Methyl-4,6-Dinitrophenol	20	ND	ND
Pentachlorophenol	4	ND	ND
4-Nitrophenol	3	ND	ND


Analyst


Approved By

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - EPA 625
Matrix: Water

page 1 of 4

Date Received: March 5, 1988
Date Reported: March 25, 1988

P.O. No.:
Job No.: AT077

FOR: ES: Atlanta/Volk ANGB
Address: 57 Executive Park S. E., Suite 590
Atlanta, Georgia 30329
ATTN: Mr. Jim Duncan

Lab Number:	880536	880537
Sample No.:	UF, 2-W1, GW1, ES	UF, 1-W4, GW1, ES
Date Sampled:	3-04-88	3-04-88
Time Sampled:	0915	1500
Date Extracted:	3-07-88	3-07-88
Date Analyzed:	3-18-88	3-18-88

Compound	Detection Limits	ANALYTICAL RESULTS	
	ug/L	ug/L	ug/L
1,3-Dichlorobenzene	2	ND	ND
1,4-Dichlorobenzene	2	ND	ND
Hexachloroethane	2	ND	ND
Bis(2-chloroethyl)ether	6	ND	ND
1,2-Dichlorobenzene	2	ND	ND
N-Nitrosodimethylamine	25	ND	ND
Bis(2-chloroisopropyl)ether	6	ND	ND
N-Nitrosodi-n-propyl amine	25	ND	ND
Hexachlorobutadiene	1	ND	ND
1,2,4-Trichlorobenzene	2	ND	ND
Nitrobenzene	2	ND	ND
Isophorone	2	ND	ND
Naphthalene	2	ND	19
Bis(2-chloroethoxy)methane	5	ND	ND
2-Chloronaphthalene	2	ND	ND
Hexachlorocyclopentadiene	25	ND	ND
Acenaphthylene	4	ND	ND
Acenaphthene	2	ND	ND
Dimethyl phthalate	2	ND	ND
2,6-Dinitrotoluene	2	ND	ND
Fluorene	2	ND	ND
2,4-Dinitrotoluene	2	ND	ND
Diethyl phthalate	2	ND	ND
N-Nitrosodiphenylamine	2	ND	ND
Hexachlorobenzene	2	ND	ND

Priority Pollutant Analysis
Base Neutrals - EPA 625
Matrix: Water
(continued)

page 2 of 4

Date Received: March 5, 1988
Date Reported: March 25, 1988

P.O. No.:
Job No.: AT077

FOR: ES: Atlanta/Volk ANGB
Address: 57 Executive Park S. E., Suite 590
Atlanta, Georgia 30329
ATTN: Mr. Jim Duncan

Lab Number:	880536	880537
Sample Number:	UF, 2-W1, GW1, ES	UF, 1-W4, GW1, ES
Date Sampled:	3-04-88	3-04-88
Time Sampled:	0915	1500
Date Extracted:	3-07-88	3-07-88
Date Analyzed:	3-18-88	3-18-88

Compound	Detection Limit ug/L	ANALYTICAL RESULTS	
		ug/L	ug/L
Phenanthrene	5	ND	ND
Anthracene	2	ND	ND
Dibutyl phthalate	3	ND	ND
Fluoranthene	2	ND	ND
4-Chlorophenyl phenyl ether	4	ND	ND
Pyrene	2	ND	ND
Butyl Benzyl phthalate	3	ND	ND
Bis(2-ethylhexyl) phthalate	3	11	ND
Chrysene	3	ND	ND
4-Bromophenyl phenyl ether	2	ND	ND
Benzo(a)anthracene	8	ND	ND
Di-n-octylphthalate	3	ND	ND
Benzo(b)fluoranthene	5	ND	ND
Benzo(k)fluoranthene	3	ND	ND
Benzidine	60	ND	ND
3,3'-Dichlorobenzidine	40	ND	ND
Benzo(a)pyrene	3	ND	ND
Indeno(1,2,3-cd)pyrene	4	ND	ND
Dibenzo(a,h)anthracene	3	ND	ND
Benzo(ghi)perylene	4	ND	ND

Priority Pollutant Analysis
Pesticides and PCBs - EPA 625
Matrix: Water

page 3 of 4

Date Received: March 5, 1988
Date Reported: March 25, 1988

P.O. No.:
Job No.: AT077

FOR: ES: Atlanta/Volk ANGB
Address: 57 Executive Park S. E., Suite 590
Atlanta, Georgia 30329
ATTN: Mr. Jim Duncan

Lab Number:	880536	880537
Sample No.:	UF, 2-W1, GW1, ES	UF, 1-W4, GW1, ES
Date Sampled:	3-04-88	3-04-88
Time Sampled:	0915	1500
Date Extracted:	3-07-88	3-07-88
Date Analyzed:	3-18-88	3-18-88

Compound	Detection Limits ug/L	ANALYTICAL RESULTS	
		ug/L	ug/L
Alpha-BHC	--*	ND	ND
Gamma-BHC	---	ND	ND
Beta-BHC	4	ND	ND
Heptachlor	2	ND	ND
Delta-BHC	3	ND	ND
Aldrin	2	ND	ND
Heptachlor epoxide	2	ND	ND
Endosulfan I	--*	ND	ND
Dieldrin	3	ND	ND
4,4'-DDE	6	ND	ND
Endrin	--*	ND	ND
Endosulfan II	--*	ND	ND
4,4'-DDD	3	ND	ND
4,4'-DDT	5	ND	ND
Endosulfan Sulfate	6	ND	ND
Endrin aldehyde	--*	ND	ND
Chlordane	40	ND	ND
Toxaphene	40	ND	ND
PCB-1016	40	ND	ND
PCB-1221	40	ND	ND
PCB-1232	40	ND	ND
PCB-1242	40	ND	ND
PCB-1248	40	ND	ND
PCB-1254	40	ND	ND
PCB-1260	40	ND	ND

* Detection limits have not yet been determined for these compounds

Priority Pollutant Analysis
Acid Extractables -- EPA 625
Matrix: Water

page 4 of 4

Date Received: March 5, 1988
Date Reported: March 25, 1988

P.O. No.:
Job No.: AT077

FOR: ES: Atlanta/Volk ANGB
Address: 57 Executive Park S. E., Suite 590
Atlanta, Georgia 30329
ATTN: Mr. Jim Duncan

Lab Number:	880536	880537
Sample No.:	UF, 2-W1, GW1, ES	UF, 1-W4, GW1, ES
Date Sampled:	3-04-88	3-04-88
Time Sampled:	0915	1500
Date Extracted:	3-07-88	3-07-88
Date Analyzed:	3-18-88	3-18-88

Compound	Detection	ANALYTICAL RESULTS	
	Limits	ug/L	ug/L
	ug/L		
2-Chlorophenol	3	ND	ND
2-Nitrophenol	4	ND	ND
Phenol	2	ND	ND
2,4-Dimethylphenol	3	ND	ND
2,4-Dichlorophenol	3	ND	ND
2,4,6-Trichlorophenol	3	ND	ND
4-Chloro-3-methylphenol	3	ND	ND
2,4-Dinitrophenol	40	ND	ND
2-Methyl-4,6-Dinitrophenol	20	ND	ND
Pentachlorophenol	4	ND	ND
4-Nitrophenol	3	ND	ND

Laura Kuek
Analyst

AWB
Approved By

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Base Neutrals - EPA 625
Matrix: Water

page 1 of 4

Date Received: March 5, 1988
 Date Reported: March 25, 1988

P.O. No.:
 Job No.: AT077

FOR: ES: Atlanta/Volk ANGB
 Address: 57 Executive Park S. E., Suite 590
 Atlanta, Georgia 30329
 ATTN: Mr. Jim Duncan

Lab Number:	880538	880539
Sample No.:	UF, 1-W5, GW1, ES	UF, 2-W2, GW1, ES
Date Sampled:	3-04-88	3-04-88
Time Sampled:	1600	1130
Date Extracted:	3-07-88	3-07-88
Date Analyzed:	3-18-88	3-18-88

Compound	Detection Limits ug/L	ANALYTICAL RESULTS	
		ug/L	ug/L
1,3-Dichlorobenzene	2	ND	ND
1,4-Dichlorobenzene	2	ND	ND
Hexachloroethane	2	ND	ND
Bis(2-chloroethyl)ether	6	ND	ND
1,2-Dichlorobenzene	2	ND	ND
N-Nitrosodimethylamine	25	ND	ND
Bis(2-chloroisopropyl)ether	6	ND	ND
N-Nitrosodi-n-propyl amine	25	ND	ND
Hexachlorobutadiene	1	ND	ND
1,2,4-Trichlorobenzene	2	ND	ND
Nitrobenzene	2	ND	ND
Isophorone	2	ND	ND
Naphthalene	2	ND	ND
Bis(2-chloroethoxy)methane	5	ND	ND
2-Chloronaphthalene	2	ND	ND
Hexachlorocyclopentadiene	25	ND	ND
Acenaphthylene	4	ND	ND
Acenaphthene	2	ND	ND
Dimethyl phthalate	2	ND	ND
2,6-Dinitrotoluene	2	ND	ND
Fluorene	2	ND	ND
2,4-Dinitrotoluene	2	ND	ND
Diethyl phthalate	2	ND	ND
N-Nitrosodiphenylamine	2	ND	ND
Hexachlorobenzene	2	ND	ND

Priority Pollutant Analysis
Base Neutrals - EPA 625
Matrix: Water
(continued)

page 2 of 4

Date Received: March 5, 1988
Date Reported: March 25, 1988

P.O. No.:
Job No.: AT077

FOR: ES: Atlanta/Volk ANGB
Address: 57 Executive Park S. E., Suite 590
Atlanta, Georgia 30329
ATTN: Mr. Jim Duncan

Lab Number:	880538	880539
Sample Number:	UF, 1-W5, GW1, ES	UF, 2-W2, GW1, ES
Date Sampled:	3-04-88	3-04-88
Time Sampled:	1600	1130
Date Extracted:	3-07-88	3-07-88
Date Analyzed:	3-18-88	3-18-88

Compound	Detection Limit ug/L	ANALYTICAL RESULTS	
		ug/L	ug/L
Phenanthrene	5	ND	ND
Anthracene	2	ND	ND
Dibutyl phthalate	3	ND	ND
Fluoranthene	2	ND	ND
4-Chlorophenyl phenyl ether	4	ND	ND
Pyrene	2	ND	ND
Butyl Benzyl phthalate	3	ND	ND
Bis(2-ethylhexyl) phthalate	3	ND	ND
Chrysene	3	ND	ND
4-Bromophenyl phenyl ether	2	ND	ND
Benzo(a)anthracene	8	ND	ND
Di-n-octylphthalate	3	ND	ND
Benzo(b)fluoranthene	5	ND	ND
Benzo(k)fluoranthene	3	ND	ND
Benzidine	60	ND	ND
3,3'-Dichlorobenzidine	40	ND	ND
Benzo(a)pyrene	3	ND	ND
Indeno(1,2,3-cd)pyrene	4	ND	ND
Dibenzo(a,h)anthracene	3	ND	ND
Benzo(ghi)perylene	4	ND	ND

Priority Pollutant Analysis
Pesticides and PCBs - EPA 625
Matrix: Water

page 3 of 4

Date Received: March 5, 1988
Date Reported: March 25, 1988

P.O. No.:
Job No.: AT077

FOR: ES:Atlanta/Volk ANGB
Address: 57 Executive Park S. E., Suite 590
Atlanta, Georgia 30329
ATTN: Mr. Jim Duncan

Lab Number:	880538	880539
Sample No.:	UF, 1-W5, GW1, ES	UF, 2-W2, GW1, ES
Date Sampled:	3-04-88	3-04-88
Time Sampled:	1600	1130
Date Extracted:	3-07-88	3-07-88
Date Analyzed:	3-18-88	3-18-88

Compound	Detection Limits ug/L	ANALYTICAL RESULTS	
		ug/L	ug/L
Alpha-BHC	--*	ND	ND
Gamma-BHC	—*	ND	ND
Beta-BHC	4	ND	ND
Heptachlor	2	ND	ND
Delta-BHC	3	ND	ND
Aldrin	2	ND	ND
Heptachlor epoxide	2	ND	ND
Endosulfan I	--*	ND	ND
Dieldrin	3	ND	ND
4,4'-DDE	6	ND	ND
Endrin	--*	ND	ND
Endosulfan II	--*	ND	ND
4,4'-DDD	3	ND	ND
4,4'-DDT	5	ND	ND
Endosulfan Sulfate	6	ND	ND
Endrin aldehyde	--*	ND	ND
Chlordane	40	ND	ND
Toxaphene	40	ND	ND
PCB-1016	40	ND	ND
PCB-1221	40	ND	ND
PCB-1232	40	ND	ND
PCB-1242	40	ND	ND
PCB-1248	40	ND	ND
PCB-1254	40	ND	ND
PCB-1260	40	ND	ND

* Detection limits have not yet been determined for these compounds

Priority Pollutant Analysis
Acid Extractables -- EPA 625
Matrix: Water

page 4 of 4

Date Received: March 5, 1988
Date Reported: March 25, 1988

P.O. No.:
Job No.: AT077

FOR: ES: Atlanta/Volk ANGB
Address: 57 Executive Park S. E., Suite 590
Atlanta, Georgia 30329
ATTN: Mr. Jim Duncan

Lab Number:	880538	880539
Sample No.:	UF, 1-W5, GW1, ES	UF, 2-W2, GW1, ES
Date Sampled:	3-04-88	3-04-88
Time Sampled:	1600	1130
Date Extracted:	3-07-88	3-07-88
Date Analyzed:	3-18-88	3-18-88

Compound	Detection Limits ug/L	ANALYTICAL RESULTS	
		ug/L	ug/L
2-Chlorophenol	3	ND	ND
2-Nitrophenol	4	ND	ND
Phenol	2	ND	ND
2,4-Dimethylphenol	3	ND	ND
2,4-Dichlorophenol	3	ND	ND
2,4,6-Trichlorophenol	3	ND	ND
4-Chloro-3-methylphenol	3	ND	ND
2,4-Dinitrophenol	40	ND	ND
2-Methyl-4,6-Dinitrophenol	20	ND	ND
Pentachlorophenol	4	ND	ND
4-Nitrophenol	3	ND	ND

Laura Kuck
Analyst

RWB
Approved By

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

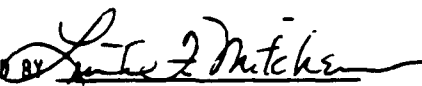
**ANALYTICAL RESULTS
FOR METALS**

05/13/88

ANALYSIS REPORT

WORK ORDER NUMBER: 467
JOB NUMBER : ZB0000000400
WORK ORDER DATE : 01/27/88

APPROVED BY


Lab Supervisor

REPORT DATA:
ES ATLANTA/VOLK FIELD AMGB
57 EXECUTIVE PARK STE. 590
ATLANTA, GA 30329
JIMMY DUNCAN

CLIENT DATA:
ES ATLANTA/VOLK FIELD AMGB (85)
57 EXECUTIVE PARK STE. 590
ATLANTA, GA 30329

OF REPORT COPIES: 1

CONTRACT / PO # : AT077
CONTACT : JIMMY DUNCAN
(404)-325-0770

TASK: 2, UNITS: mg/KG

	VF1,B-3,SS-3, 8.5' 88010186	VF1,B-21,SS-1, 1.0' 88010187	VF1,B-22,SS-1, 0.5' 88010188	VF1,B-4,SS-1, 0.5' 88010189	VF1,B-1,SS-1, 0.5' 88010190	VF1,B-1,SS-2, 3.5' 88010191
TEST COMPOUND						
3050	NA	NA	NA	NA	NA	NA
PB-F	<0.5	1.6	85.0	62.05	5.7	0.8

ANALYSIS REPORT FOR WORK ORDER NUMBER 467

TASK: 2, UNITS: mg/KG

TEST COMPOUND	VF1,B-1,SS-3, 8.5'	VF1,B-2,SS-1, 0.5'	VF1,B-2,SS-2, 3.5'	VF1,B-2,SS-3, 8.5'	VF1,B-3,SS-1, 1.0'	VF1,B-3,SS-2, 3.5'
	88010192	88010193	88010194	88010195	88010196	88010197
3050	NA	NA	NA	NA	NA	NA
PB-F	0.6	1.8	<0.5	<0.5	1.7	<0.5

ANALYSIS REPORT FOR WORK ORDER NUMBER 467

TASK: 2. UNITS: mg/KG

TEST COMPOUND	VF1,B-4,SS-2, 3.5' 88010198	VF1,B-4,SS-3, 8.5' 88010199
3050	NA	NA
PB-F	3.9	0.9

DETECTION LIMITS
ENVIRONMENTAL QUALITY PARAMETERS
SAMPLES NO.: 88010186-88010199

Parameter	Units	Detection Limits
SW7421 PB-F,	mg/KG	0.5

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

LEGEND FOR RESULT QUALIFIERS

- B Reported value is less than Reporting limit
 but greater than the MDL.
- N Spiked sample recovery not within control limits.
- S Reported value was determined by the Method of
 Standard Additions.
- * Duplicate analysis not within control limits.
- J Sample value is corrected by the analyte
 concentration found in the blank.
- W Post digestion spike for Furnace AA analysis
 out of control limits (85-115%), while sample
 absorbance is less than 50% of spike absorbance.

ANALYSIS REPORT

WORK ORDER NUMBER: 474
JOB NUMBER : ZB0000000400
WORK ORDER DATE : 01/29/88

APPROVED BY 
Lab Supervisor

REPORT DATA:
ES ATLANTA/VOLK FIELD ANGB
57 EXECUTIVE PARK STE. 590
ATLANTA, GA 30329
JIMMY DUNCAN

CLIENT DATA:
ES ATLANTA/VOLK FIELD ANGB (85)
57 EXECUTIVE PARK STE. 590
ATLANTA, GA 30329

OF REPORT COPIES: 1

CONTRACT / PO # : AT077
CONTACT : JIMMY DUNCAN
(404)-325-0770

TASK: 2, UNITS: mg/KG

TEST COMPOUND	VF1,B-26,SS-1, 0' 88010214	VF1,B-9,SS-2, 3.5' 88010215	VF1,B-9,SS-3, 8.5' 88010216	VF1,B-8,SS-1, 0' 88010217	VF1,B-8,SS-2, 3.5' 88010218	VF1,B-8,SS-3, 8.5' 88010219
3050	NA	NA	NA	NA	NA	NA
PB-F	2.3	0.9	<0.5	11.05	0.5	<0.5

ANALYSIS REPORT FOR WORK ORDER NUMBER 474

TASK: 2, UNITS: mg/KG

TEST COMPOUND	UF1,8-9,SS-1, 0' 88010220
-----	-----
3050	NA
PB-F	2.3

DETECTION LIMITS
ENVIRONMENTAL QUALITY PARAMETERS
SAMPLES NO.: 88010214-88010220

Parameter	Units	Detection Limits
SW7421 PB-F	mg/KG	0.5

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

LEGEND FOR RESULT QUALIFIERS

- B Reported value is less than Reporting limit
 but greater than the MDL.
- N Spiked sample recovery not within control limits.
- S Reported value was determined by the Method of
 Standard Additions.
- * Duplicate analysis not within control limits.
- J Sample value is corrected by the analyte
 concentration found in the blank.
- W Post digestion spike for Furnace AA analysis
 out of control limits (85-115%), while sample
 absorbance is less than 50% of spike absorbance.

ANALYSIS REPORT

WORK ORDER NUMBER: 489
JOB NUMBER : Z80000000400
WORK ORDER DATE : 02/10/88

APPROVED BY

L. J. McIntire
Lab Supervisor

REPORT DATA:
ES ATLANTA/VOLK FIELD AMGB
57 EXECUTIVE PARK STE. 590
ATLANTA, GA 30329
JIMMY DUNCAN

CLIENT DATA:
ES ATLANTA/VOLK FIELD AMGB (85)
57 EXECUTIVE PARK STE. 590
ATLANTA, GA 30329

OF REPORT COPIES: 1

CONTRACT / PO # : AT077
CONTACT : JIMMY DUNCAN
(404)-325-0770

TASK: 2, UNITS: mg/KG

TEST COMPOUND	VF1,B-10,SS-1, 0.5' 88020289	VF1,B-27,SS-1, 0.5' 88020290	VF1,B-10,SS-2, 3.5' 88020291	VF1,B-10,SS-3, 8.5' 88020292	VF1,B-11,SS-1, 1.0' 88020293	VF1,B-11,SS-2 3.5' 88020294
3050	NA	NA	NA	NA	NA	NA
PB-F	4.4	4.05	1.0	<0.5	1.8	0.6

ANALYSIS REPORT FOR WORK ORDER NUMBER 489

TASK: 2, UNITS: mg/KG

TEST COMPOUND	VF1,B-11,SS-3, 8.5'	VF1,B-12,SS-1 1.0'	VF1,B-12,SS-2, 3.5'	VF1,B-12,SS-3, 8.5'	VF1,B-13,SS-1, 1.5'	VF1,B-20,SS-1, 1.5'
	88020295	88020296	88020297	88020298	88020299	88020300
	-----	-----	-----	-----	-----	-----
3050	NA	NA	NA	NA	NA	NA
PB-F	0.9	2.2	1.5	0.7	0.8	2.4

DETECTION LIMITS
ENVIRONMENTAL QUALITY PARAMETERS
SAMPLES NO.: 88020289-88020300

Parameter	Units	Detection Limits
SW7421 PB-F	mg/KG	0.5

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

LEGEND FOR RESULT QUALIFIERS

- E Reported value is less than Reporting limit
 but greater than the MDL.
- N Spiked sample recovery not within control limits.
- S Reported value was determined by the Method of
 Standard Additions.
- * Duplicate analysis not within control limits.
- J Sample value is corrected by the analyte
 concentration found in the blank.
- W Post digestion spike for Furnace AA analysis
 out of control limits (85-115%), while sample
 absorbance is less than 50% of spike absorbance.

ANALYSIS REPORT

WORK ORDER NUMBER: 500
JOB NUMBER : Z80000000400
WORK ORDER DATE : 02/11/88

APPROVED BY

Lab Supervisor

REPORT DATA:
ES ATLANTA/VOLK FIELD AMGB
57 EXECUTIVE PARK STE. 590
ATLANTA, GA 30329
JIMMY DUNCAN

CLIENT DATA:
ES ATLANTA/VOLK FIELD AMGB (85)
57 EXECUTIVE PARK STE. 590
ATLANTA, GA 30329

OF REPORT COPIES: 1

CONTRACT / PO # : AT077
CONTACT : JIMMY DUNCAN
(404)-325-0770

TASK: 2, UNITS: mg/KG

TEST COMPOUND	VF1,8-14,SS-3, 8.5' 88020371	VF1,8-15,SS-1, 0.5' 88020372	VF1,8-15,SS-2, 3.5' 88020373	VF1,8-15,SS-3, 8.5' 88020374	VF1,8-13,SS-2, 3.5' 88020375	VF1,8-13,SS-3, 8.5' 88020376
3050	NA	NA	NA	NA	NA	NA
PB-F	0.6	1.7	<0.5	<0.5	0.6	<0.5

ANALYSIS REPORT FOR WORK ORDER NUMBER 500

TASK: 2, UNITS: mg/KG

TEST COMPOUND	VF1,B-14,SS-1, 1.0' 88020377	VF1,B-14,SS-2, 3.5' 88020378
3050	NA	NA
PB-F	7.1	1.0

ND - Not Detected

E-477

DETECTION LIMITS
ENVIRONMENTAL QUALITY PARAMETERS
SAMPLES NO.: 88020371-88020378

Parameter	Units	Detection Limits
SW7421 PB-F	mg/KG	0.5

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

LEGEND FOR RESULT QUALIFIERS

- B Reported value is less than Reporting limit
but greater than the MDL.
- N Spiked sample recovery not within control limits.
- S Reported value was determined by the Method of
Standard Additions.
- * Duplicate analysis not within control limits.
- J Sample value is corrected by the analyte
concentration found in the blank.
- W Post digestion spike for Furnace AA analysis
out of control limits (85-115%), while sample
absorbance is less than 50% of spike absorbance.

05/13/88

ANALYSIS REPORT

WORK ORDER NUMBER: 472
JOB NUMBER : ZB0000000400
WORK ORDER DATE : 01/28/88

APPROVED BY

Lab Supervisor

REPORT DATA:
ES ATLANTA/VOLK FIELD AMGB
57 EXECUTIVE PARK STE. 590
ATLANTA, GA 30329
JIMMY DUNCAN

CLIENT DATA:
ES ATLANTA/VOLK FIELD AMGB (85)
57 EXECUTIVE PARK STE. 590
ATLANTA, GA 30329

OF REPORT COPIES: 1

CONTRACT / PO # : AT077
CONTACT : JIMMY DUNCAN
(404)-325-0770

TASK: 2, UNITS: mg/KG

TEST COMPOUND	VF1,B-7,SS-3, 8.5' 88010204	VF1,B-6,SS-2, 3.5' 88010205	VF1,B-6,SS-3, 8.5' 88010206	VF1,B-7,SS-1, 0' 88010207	VF1,B-7,SS-2, 3.5' 88010208	VF1,B-5,SS-1,0' 88010209
3050	NA	NA	NA	NA	NA	NA
PB-F	<0.5	55.0	1.9	1.8	0.9	5.8

ND - Not Detected

E-480

ANALYSIS REPORT FOR WORK ORDER NUMBER 472

TASK: 2, UNITS: mg/KG

TEST COMPOUND	VF1,B-5,SS-2, 3.5'	VF1,B-5,SS-3, 10.0'	VF1,B-6,SS-1, 0'
	88010210	88010211	88010212
3050	NA	NA	NA
PB-F	1.2	<0.5	77.5

ND - Not Detected

DETECTION LIMITS
ENVIRONMENTAL QUALITY PARAMETERS
SAMPLES NO.: 88010204-88010212

Parameter	Units	Detection Limits
SW7421 PB-F	mg/KG	0.5

The method detection limits listed are based upon the EPA method listed. Dilution or other deviations from the normal procedures, required due to characteristics of a sample, will influence these values. These changes are described in the report narrative if applicable.

LEGEND FOR RESULT QUALIFIERS

- B Reported value is less than Reporting limit
 but greater than the MDL.
- N Spiked sample recovery not within control limits.
- S Reported value was determined by the Method of
 Standard Additions.
- * Duplicate analysis not within control limits.
- J Sample value is corrected by the analyte
 concentration found in the blank.
- W Post digestion spike for Furnace AA analysis
 out of control limits (85-115%), while sample
 absorbance is less than 50% of spike absorbance.

ANALYSIS REPORT

DRK ORDER NUMBER: 534
DE NUMBER : Z80000000400
DRK ORDER DATE : 03/08/88

APPROVED BY

Mike J. Minter
Lab Supervisor

REPORT DATA:
S ATLANTA/VOLK FIELD AMGB
7 EXECUTIVE PARK STE. 590
PLANTA, GA 30329
JIMMY DUNCAN

CLIENT DATA:
ES ATLANTA/VOLK FIELD AMGB (85)
57 EXECUTIVE PARK STE. 590
ATLANTA, GA 30329

OF REPORT COPIES: 1

CONTRACT / PO # : AT077
CONTACT : JIMMY DUNCAN
(404)-325-0770

ASK: 2. UNITS: mg/L

	VF,2-W5,GW1,ES	VF,2-1,SW1,ES	VF,2-2,SW1,ES	VF,1-W3,GW1,ES	VF,10-W1,GW1,ES	VF,2-W3,GW1,ES
EST COMPOUND	88030551	88030552	88030553	88030554	88030555	88030556
O2O				NA	NA	
B-F				0.005W	<.005W	
O1O	NA	NA	NA			NA
O2O	NA	NA	NA			NA
G-A	<0.01M	<0.01M	<0.01M			<0.01M
S-F	<0.005	<0.005	<0.005			<0.005
E-A	<0.001	<0.001	<0.001			<0.001
D-W	<0.010	<0.010	<0.010			<0.010
R-A	<0.010	<0.010	<0.010			<0.010
U-A	<0.010	<0.010	0.018			<0.018
G-C	<.0002	<.0002	<.0002			<.0002
I-W	<0.010	<0.010	<0.010			<0.010
B-F	<0.005	<0.005	0.007			<.005W
B-A	<0.06	<0.06	<0.06			<0.06
E-F	<0.005	<0.005	<0.005			<0.005
L-A	<0.10	<0.10	0.12			<0.10
M-A	0.03	0.02	0.04			0.02

ANALYSIS REPORT FOR WORK ORDER NUMBER 534

TASK: 2. UNITS: mg/L

	VF,2-W4,GW1,ES	VF,10-W2,GW1,ES	VF,10-W3,GW1,ES	VF,10-W5,GW1,ES	VF,10-W4,GW1,ES	VF,12-W2,GW1,ES
TEST COMPOUND	88030557	88030558	88030559	88030560	88030561	88030562
3020		NA	NA	NA	NA	
PB-F		0.000U	<.005U	0.006U	0.006U	
3010	NA					NA
3020	NA					NA
AG-A	<0.01M					<0.01M
MS-F	<0.005					<.005U
BE-W	0.0018					<0.001
CD-A	<0.010					<0.010
CR-A	0.018					<0.01
CU-A	0.018					<0.01
HG-C	<.0002					<.0002
NI-A	<0.010					<0.010
PB-F	<.005U					<0.005
SB-A	<0.06					<0.06
SE-F	<0.005					<0.005
TL-A	<0.10					<0.10
ZN-W	0.03					0.018

ES
REPORTING LEVELS AND MDL'S FOR METALS
SAMPLES NO.: 880305551-88030562

Metal	MDL (ES) mg/L	Reporting Limits mg/L
Aluminum	0.1	0.2
Antimony	0.1	0.1
Arsenic	0.005	0.005
Barium	0.01	0.2
Beryllium	0.001	0.005
Boron	0.1	0.1
Cadmium	0.01	0.01
Calcium	0.1	5.0
Chromium	0.01	0.05
Cobalt	0.01	0.05
Copper	0.01	0.025
Iron	0.01	0.1
Lead	0.005	0.005
Magnesium	0.1	5.0
Manganese	0.01	0.015
Mercury	0.0002	0.0002
Molybdenum	0.1	0.1
Nickel	0.01	0.04
Potassium	1.0	5
Selenium	0.005	0.005
Silica	0.1	0.1
Silver	0.01	0.05
Sodium	0.1	5.0
Thallium	0.1	0.1
Vanadium	0.1	0.1
Zinc	0.01	0.02

LEGEND FOR RESULT QUALIFIERS

- B Reported value is less than Reporting limit
 but greater than the MDL.
- N Spiked sample recovery not within control limits.
- S Reported value was determined by the Method of
 Standard Additions.
- * Duplicate analysis not within control limits.
- J Sample value is corrected by the analyte
 concentration found in the blank.
- W Post digestion spike for Furnace AA analysis
 out of control limits (85-115%), while sample
 absorbance is less than 50% of spike absorbance.

ANALYSIS REPORT

K ORDER NUMBER: 530
NUMBER : ZB0000000400
K ORDER DATE : 03/05/88

APPROVED BY 
Lab Supervisor

ORT DATA:
ATLANTA/VOLK FIELD ANGB
EXECUTIVE PARK STE. 590
ANTA, GA 30329
MY DUNCAN

CLIENT DATA:
ES ATLANTA/VOLK FIELD ANGB (85)
57 EXECUTIVE PARK STE. 590
ATLANTA, GA 30329

F REPORT COPIES: 1

TRACT / PO # : AT077
TRACT : JIMMY DUNCAN
(404)-325-0770

K: 2, UNITS: mg/L

	VF,2-W1,GW1,ES	VF,1-W4,GW1,ES	VF,1-W5,GW1,ES	VF,2-W2,GW1,ES	VF,1-W1,GW1,ES	VF,3/6-W1,GW1,ES
IT COMPOUND	88030536	88030537	88030538	88030539	88030540	88030541
LO		NA	NA		NA	NA
-F		0.006	0.020		0.010	<.005M
LO	NA			NA		
LO	NA			NA		
-A	<0.01M			0.01M8		
-F	<0.005			0.005		
-A	<0.001			0.0018		
-A	<0.010			<0.010		
-A	<0.010			0.038		
-A	0.028			0.030		
-C	<.0002			<.0002		
-A	<0.01			0.028		
-F	0.010			0.009		
-A	<0.06			<0.06		
-F	<0.005			<0.005		
-A	<0.10			<0.10		
-A	0.04			0.05		

ES
REPORTING LEVELS AND MDL'S FOR METALS
SAMPLES NO.: 88030536-88030541

Metal	MDL (ES) mg/L	Reporting Limits mg/L
Al	0.1	0.2
Sb	0.1	0.1
Ba	0.01	0.2
Be	0.001	0.005
B	0.1	0.1
Cd	0.01	0.01
Ca	0.1	5.0
Cr	0.01	0.05
Co	0.01	0.05
Cu	0.01	0.025
Fe	0.01	0.1
Pb	0.005	0.005
Mg	0.1	5.0
Mn	0.01	0.015
Mo	0.1	0.1
Ni	0.01	0.04
K	1.0	5.0
SiO2	0.1	0.1
Ag	0.01	0.05
Na	0.1	5.0
Tl	0.1	0.1
V	0.1	0.1
Zn	0.01	0.02
As	0.005	0.005
Se	0.005	0.005
Hg	0.0002	0.0002

LEGEND FOR RESULT QUALIFIERS

- B Reported value is less than Reporting limit
 but greater than the MDL.
- N Spiked sample recovery not within control limits.
- S Reported value was determined by the Method of
 Standard Additions.
- * Duplicate analysis not within control limits.
- J Sample value is corrected by the analyte
 concentration found in the blank.
- W Post digestion spike for Furnace AA analysis
 out of control limits (85-115%), while sample
 absorbance is less than 50% of spike absorbance.

ANALYSIS REPORT

WORK ORDER NUMBER: 536
JOB NUMBER : ZB0000000400
WORK ORDER DATE : 03/09/88

APPROVED BY


Lab Supervisor

REPORT DATA:
ES ATLANTA/VOLK FIELD AMGB
57 EXECUTIVE PARK STE. 590
ATLANTA, GA 30329
JIMMY DUNCAN

CLIENT DATA:
ES ATLANTA/VOLK FIELD AMGB (85)
57 EXECUTIVE PARK STE. 590
ATLANTA, GA 30329

OF REPORT COPIES: 1

CONTRACT / PO # : AT077
CONTACT : JIMMY DUNCAN
(404)-325-0770

TASK: 2, UNITS: mg/L

	VF,12-W3,CU1,ES	VF,1-W2,CU1,ES	VF,ET-1,CU1,ES	VF,ET-2,CU1,ES	VF,ET-3,CU1,ES
TEST COMPOUND	88030565	88030566	88030567	88030568	88030569
-----	-----	-----	-----	-----	-----
3020	NA	NA	NA	NA	NA
PB-F	<0.005	0.005	0.033	0.025	0.005

ES
REPORTING LEVELS AND MDL'S FOR METALS
SAMPLES NO.: 88030565-88030569

Metal	MDL (ES) mg/L	Reporting Limits mg/L
Al	0.1	0.2
Sb	0.1	0.1
Ba	0.01	0.2
Be	0.001	0.005
B	0.1	0.1
Cd	0.01	0.01
Ca	0.1	5.0
Cr	0.01	0.05
Co	0.01	0.05
Cu	0.01	0.025
Fe	0.01	0.1
Pb	0.005	0.005
Mg	0.1	5.0
Mn	0.01	0.015
Mo	0.1	0.1
Ni	0.01	0.04
K	1.0	5.0
SiO2	0.1	0.1
Ag	0.01	0.05
Na	0.1	5.0
Tl	0.1	0.1
V	0.1	0.1
Zn	0.01	0.02
As	0.005	0.005
Se	0.005	0.005
Hg	0.0002	0.0002

LEGEND FOR RESULT QUALIFIERS

- B Reported value is less than Reporting limit
 but greater than the MDL.
- N Spiked sample recovery not within control limits.
- S Reported value was determined by the Method of
 Standard Additions.
- * Duplicate analysis not within control limits.
- J Sample value is corrected by the analyte
 concentration found in the blank.
- W Post digestion spike for Furnace AA analysis
 out of control limits (85-115%), while sample
 absorbance is less than 50% of spike absorbance.

ANALYSIS REPORT

WORK ORDER NUMBER: 538
JOB NUMBER : ZB0000000400
WORK ORDER DATE : 03/10/88

APPROVED BY


Lab Supervisor

REPORT DATA:
ES ATLANTA/VOLK FIELD ANGB
57 EXECUTIVE PARK STE. 590
ATLANTA, GA 30329
JIMMY DUNCAN

CLIENT DATA:
ES ATLANTA/VOLK FIELD ANGB (85)
57 EXECUTIVE PARK STE. 590
ATLANTA, GA 30329

OF REPORT COPIES: 1

CONTRACT / PO # : AT077
CONTACT : JIMMY DUNCAN
(404)-325-0770

TASK: 2, UNITS: mg/L

	VF,ET-5,GW1,ES	VF,ET-4,GW1,ES	VF,13-W1,GW1,ES	VF,ET-7,GW1,ES	VF,ET-6,GW1,ES
TEST COMPOUND	88030572	88030573	88030574	88030575	88030576
3020	NA	NA		NA	NA
PB-F	0.270	0.053		0.007	0.009
3010			NA		
3020			NA		
AG-A			<0.01M		
AS-F			<.005M		
BE-A			<0.001		
CD-A			<0.010		
CR-A			<0.010		
CU-A			0.018		
HG-C			<.0002		
NI-A			<0.010		
PB-F			<0.005		
SB-A			<0.06		
SE-F			<0.005		
TL-A			<0.10		
ZN-A			0.018		

LEGEND FOR RESULT QUALIFIERS

- B Reported value is less than Reporting limit
but greater than the MDL.
- N Spiked sample recovery not within control limits.
- S Reported value was determined by the Method of
Standard Additions.
- * Duplicate analysis not within control limits.
- J Sample value is corrected by the analyte
concentration found in the blank.
- W Post digestion spike for Furnace AA analysis
out of control limits (85-115%), while sample
absorbance is less than 50% of spike absorbance.

ES
REPORTING LEVELS AND MDL'S FOR METALS
SAMPLES NO.: 88030572-88030576

Metal	MDL (ES) mg/L	Reporting Limits mg/L
Aluminum	0.1	0.2
Antimony	0.1	0.1
Arsenic	0.005	0.005
Barium	0.01	0.2
Beryllium	0.001	0.005
Boron	0.1	0.1
Cadmium	0.01	0.01
Calcium	0.1	5.0
Chromium	0.01	0.05
Cobalt	0.01	0.05
Copper	0.01	0.025
Iron	0.01	0.1
Lead	0.005	0.005
Magnesium	0.1	5.0
Manganese	0.01	0.015
Mercury	0.0002	0.0002
Molybdenum	0.1	0.1
Nickel	0.01	0.04
Potassium	1.0	5
Selenium	0.005	0.005
Silica	0.1	0.1
Silver	0.01	0.05
Sodium	0.1	5.0
Thallium	0.1	0.1
Vanadium	0.1	0.1
Zinc	0.01	0.02

SAMPLE PREPARATION DATA



ENGINEERING-SCIENCE, INC.

RESEARCH AND DEVELOPMENT
LABORATORY
600 BANCROFT WAY
BERKELEY, CALIFORNIA 94710
(415) 841-7353

Job No.: AT077
Client: ES Atlanta
Attention: Dan Lane
Address: 57 Executive Park S., NE #590
Atlanta, Ga. 30329

Project: VOLK ANGB

The following results were reported for % moisture
on Volk soil samples:

Sample Preparation Data

Laboratory Sample No.	% Moisture	Laboratory Sample No.	% Moisture
88010186	3	88010218	3
88010187	4	88010219	3
88010188	3	88010220	4
88010189	6	88020289	5
88010190	3	88020290	5
88010191	2	88020291	4
88010192	2	88020292	5
88010193	4	88020293	5
88010194	4	88020294	3
88010195	3	88020295	3
88010196	4	88020296	1
88010197	3	88020297	1
88010198	4	88020298	4
88010199	2	88020299	1
88010204	8	88020300	1
88010205	5	88020371	1
88010206	2	88020372	4
88010207	5	88020373	3
88010208	2	88020374	3
88010209	4	88020375	3
88010210	4	88020376	4
88010211	3	88020377	13
88010212	5	88020378	3

Laboratory Sample No.	% Moisture	Laboratory Sample No.	% Moisture
88010214	4	88020383	14
88010215	3	88020384	6
88010216	6	88020385	5
88010217	9		

Detection limit = 1%

These numbers should be used to calculate dry weight values
for your samples.


Inorganic Laboratory Supervisor



ENGINEERING-SCIENCE, INC.

RESEARCH AND DEVELOPMENT
LABORATORY
600 BANCROFT WAY
BERKELEY, CALIFORNIA 94710
(415) 841-7353

Revised Report 6-23-88

Job No.: AT077
Client: ES Atlanta
Attention: Jimmy Duncan
Address: 57 Executive Park South,
N.E., Suite 590
Atlanta, GA 30329
Project: Volk Field ANGB

Attached are the analytical reports for the soil samples received by
this laboratory on 1-27-88.

Sample preparation data

<u>Laboratory</u> <u>Sample No.</u>	<u>Test</u>	<u>Date</u> <u>collected</u>	<u>Time</u> <u>collected</u>	<u>Date*</u> <u>extracted</u>	<u>Date</u> <u>analyzed</u>	<u>Date*</u> <u>2nd col.</u>
88010186	418.1	1-26-88	1405	1-30-88	2-17-88	
88010186	8010	1-26-88	1405		1-28-88	
88010186	8020	1-26-88	1405		1-28-88	
88010186	PCB	1-26-88	1405	1-28-88	2-29-88	
88010187	418.1	1-26-88	1210	1-30-88	2-17-88	
88010187	8010	1-26-88	1210		1-28-88	
88010187	8020	1-26-88	1210		1-28-88	
88010187	PCB	1-26-88	1210	1-28-88	2-22-88	
88010188	418.1	1-26-88	1430	1-30-88	2-17-88	
88010188	8010	1-26-88	1430		1-28-88	2-03-88
88010188	8020	1-26-88	1430		2-09-88	2-09-88
88010188	PCB	1-26-88	1430	1-28-88	2-22-88	
88010189	418.1	1-26-88	1430	1-30-88	2-17-88	
88010189	8010	1-26-88	1430		2-03-88	2-10-88
88010189	8020	1-26-88	1430		2-01-88	2-01-88
88010189	PCB	1-26-88	1430	1-28-88	2-22-88	
88010190	418.1	1-26-88	0840	1-30-88	2-17-88	
88010190	8010	1-26-88	0840		1-28-88	2-03-88
88010190	8020	1-26-88	0840		2-01-88	2-01-88
88010190	PCB	1-26-88	0840	1-28-88	2-22-88	
88010191	418.1	1-26-88	0910	1-30-88	2-17-88	
88010191	8010	1-26-88	0910		2-03-88	1-28-88
88010191	8020	1-26-88	0910		1-29-88	1-29-88
88010191	PCB	1-26-88	0910	1-28-88	2-22-88	

Revised Report 6-23-88

<u>Laboratory Sample No.</u>	<u>Test</u>	<u>Date collected</u>	<u>Time collected</u>	<u>Date* extracted</u>	<u>Date analyzed</u>	<u>Date* 2nd col.</u>
88010192	418.1	1-26-88	0940	1-30-88	2-17-88	
88010192	8010	1-26-88	0940		1-28-88	2-03-88
88010192	8020	1-26-88	0940		2-01-88	2-01-88
88010192	PCB	1-26-88	0940	1-28-88	2-22-88	
88010193	418.1	1-26-88	1040	1-30-88	2-17-88	
88010193	8010	1-26-88	1040		2-09-88	
88010193	8020	1-26-88	1040		2-01-88	
88010193	PCB	1-26-88	1040	1-28-88	2-22-88	
88010194	418.1	1-26-88	1110	1-30-88	2-17-88	
88010194	8010	1-26-88	1110		2-07-88	
88010194	8020	1-26-88	1110		2-09-88	
88010194	PCB	1-26-88	1110	1-28-88	2-22-88	
88010195	418.1	1-26-88	1145	1-30-88	2-17-88	
88010195	8010	1-26-88	1145		2-07-88	
88010195	8020	1-26-88	1145		2-07-88	
88010195	PCB	1-26-88	1145	1-28-88	2-22-88	
88010196	418.1	1-26-88	1210	1-30-88	2-17-88	
88010196	8010	1-26-88	1210		2-07-88	
88010196	8020	1-26-88	1210		2-09-88	
88010196	PCB	1-26-88	1210	1-28-88	2-29-88	
88010197	418.1	1-26-88	1250	1-30-88	2-17-88	
88010197	8010	1-26-88	1250		2-07-88	
88010197	8020	1-26-88	1250		2-07-88	
88010197	PCB	1-26-88	1250	1-28-88	2-22-88	
88010198	418.1	1-26-88	1530	1-30-88	2-17-88	
88010198	8010	1-26-88	1530		2-09-88	
88010198	8020	1-26-88	1530		2-09-88	
88010198	PCB	1-26-88	1530	1-28-88	2-22-88	
88010199	418.1	1-26-88	1545	1-30-88	2-17-88	
88010199	8010	1-26-88	1545		2-05-88	
88010199	8020	1-26-88	1545		2-09-88	2-05-88
88010199	PCB	1-26-88	1545	1-28-88	2-22-88	


 Laboratory Supervisor

* If applicable

This page was intentionally left blank.

This page was intentionally left blank.



ENGINEERING-SCIENCE, INC.

RESEARCH AND DEVELOPMENT
LABORATORY
600 BANCROFT WAY
BERKELEY, CALIFORNIA 94710
(415) 841-7353

Job No.: AT077
Client: ES Atlanta
Attention: Dan Lane
Address: 57 Executive Park South,
N.E., Suite 590
Atlanta, GA 30329
Project: Volk Field ANGB

Attached are the analytical reports for the soil samples received by
this laboratory on 1-27-88.

Sample preparation data

<u>Laboratory</u> <u>Sample No.</u>	<u>Test</u>	<u>Date</u> <u>collected</u>	<u>Time</u> <u>collected</u>	<u>Date*</u> <u>extracted</u>	<u>Date</u> <u>analyzed</u>	<u>Date*</u> <u>2nd col.</u>
88010186	SW7421	1-26-88	1405		5-10-88	
88010187	SW7421	1-26-88	1210		5-10-88	
88010188	SW7421	1-26-88	1430		5-10-88	
88010189	SW7421	1-26-88	1430		5-12-88	
88010190	SW7421	1-26-88	0840		5-10-88	
88010191	SW7421	1-26-88	0910		5-10-88	
88010192	SW7421	1-26-88	0940		5-10-88	
88010193	SW7421	1-26-88	1040		5-10-88	
88010194	SW7421	1-26-88	1110		5-10-88	
88010195	SW7421	1-26-88	1145		5-10-88	
88010196	SW7421	1-26-88	1210		5-11-88	
88010197	SW7421	1-26-88	1250		5-11-88	
88010198	SW7421	1-26-88	1530		5-11-88	
88010199	SW7421	1-26-88	1545		5-11-88	

* If applicable

ES

ENGINEERING-SCIENCE, INC.

RESEARCH AND DEVELOPMENT
LABORATORY
600 BANCROFT WAY
BERKELEY, CALIFORNIA 94710
(415) 841-7353

Job No.: AT077
Client: ES Atlanta
Attention: Jimmy Duncan
Address: 57 Executive Park South,
N.E., Suite 590
Atlanta, GA 30329
Project: Volk Field ANGB

Attached are the analytical reports for the soil samples received by
this laboratory on 1-28-88.

Sample preparation data

<u>Laboratory</u> <u>Sample No.</u>	<u>Test</u>	<u>Date</u> <u>collected</u>	<u>Time</u> <u>collected</u>	<u>Date*</u> <u>extracted</u>	<u>Date</u> <u>analyzed</u>	<u>Date*</u> <u>2nd col.</u>
88010204	418.1	1-27-88	1600	1-31-88	2-17-88	
88010204	8010	1-27-88	1600		2-04-88	
88010204	8020	1-27-88	1600		2-09-88	
88010204	PCB	1-27-88	1600	1-29-88	2-23-88	
88010205	418.1	1-27-88	1310	1-31-88	2-17-88	
88010205	8010	1-27-88	1310		2-04-88	2-10-88
88010205	8020	1-27-88	1310		2-10-88	2-04-88
88010205	PCB	1-27-88	1310	1-29-88	2-23-88	
88010206	418.1	1-27-88	1335	1-31-88	2-17-88	
88010206	8010	1-27-88	1335		2-04-88	2-10-88
88010206	8020	1-27-88	1335		2-10-88	2-04-88
88010206	PCB	1-27-88	1335	1-29-88	2-23-88	
88010207	418.1	1-27-88	1500	1-31-88	2-17-88	
88010207	8010	1-27-88	1500		2-05-88	
88010207	8020	1-27-88	1500		2-09-88	
88010207	PCB	1-27-88	1500	1-29-88	2-23-88	
88010208	418.1	1-27-88	1530	1-31-88	2-17-88	
88010208	8010	1-27-88	1530		2-05-88	
88010208	8020	1-27-88	1530		2-09-88	
88010208	PCB	1-27-88	1530	1-29-88	2-23-88	
88010209	418.1	1-27-88	1030	1-31-88	2-17-88	
88010209	8010	1-27-88	1030		2-05-88	
88010209	8020	1-27-88	1030		2-10-88	
88010209	PCB	1-27-88	1030	1-29-88	2-23-88	

ES

ENGINEERING-SCIENCE, INC.

RESEARCH AND DEVELOPMENT
LABORATORY
600 BANCROFT WAY
BERKELEY, CALIFORNIA 94710
(415) 841-7353

<u>Laboratory</u> <u>Sample No.</u>	<u>Test</u>	<u>Date</u> <u>collected</u>	<u>Time</u> <u>collected</u>	<u>Date*</u> <u>extracted</u>	<u>Date</u> <u>analyzed</u>	<u>Date*</u> <u>2nd col.</u>
88010210	418.1	1-27-88	1130	1-31-88	2-17-88	
88010210	8010	1-27-88	1130		2-05-88	
88010210	8020	1-27-88	1130		2-10-88	
88010210	PCB	1-27-88	1130	1-29-88	2-23-88	
88010211	418.1	1-27-88	1205	1-31-88	2-17-88	
88010211	8010	1-27-88	1205		2-05-88	
88010211	8020	1-27-88	1205		2-10-88	2-10-88
88010211	PCB	1-27-88	1205	1-29-88	2-23-88	
88010212	418.1	1-27-88	1240	1-31-88	2-17-88	
88010212	8010	1-27-88	1240		2-05-88	
88010212	8020	1-27-88	1240		2-10-88	2-10-88
88010212	PCB	1-27-88	1240	1-29-88	2-23-88	


Laboratory Supervisor

* If applicable

Job No.: AT077
Client: ES Atlanta
Attention: Dan Lane
Address: 57 Executive Park South,
N.E., Suite 590
Atlanta, GA 30329
Project: Volk Field ANGB

Attached are the analytical reports for the soil samples received by
this laboratory on 1-28-88.

Sample preparation data

<u>Laboratory</u> <u>Sample No.</u>	<u>Test</u>	<u>Date</u> <u>collected</u>	<u>Time</u> <u>collected</u>	<u>Date*</u> <u>extracted</u>	<u>Date</u> <u>analyzed</u>	<u>Date*</u> <u>2nd col.</u>
88010204	SW7421	1-27-88	1600		5-11-88	
88010205	SW7421	1-27-88	1310		5-11-88	
88010206	SW7421	1-27-88	1335		5-11-88	
88010207	SW7421	1-27-88	1500		5-11-88	
88010208	SW7421	1-27-88	1530		5-11-88	
88010209	SW7421	1-27-88	1030		5-11-88	
88010210	SW7421	1-27-88	1130		5-11-88	
88010211	SW7421	1-27-88	1205		5-11-88	
88010212	SW7421	1-27-88	1240		5-11-88	

* If applicable

ES

ENGINEERING-SCIENCE, INC.

RESEARCH AND DEVELOPMENT
LABORATORY
600 SANCROFT WAY
BERKELEY, CALIFORNIA 94710
(415) 841-7353

Job No.: AT077
Client: ES Atlanta
Attention: Jimmy Duncan
Address: 57 Executive Park South,
N.E., Suite 590
Atlanta, GA 30329
Project: Volk Field ANGB

Attached are the analytical reports for the soil samples received by
this laboratory on 1-29-88.

Sample preparation data

<u>Laboratory</u> <u>Sample No.</u>	<u>Test</u>	<u>Date</u> <u>collected</u>	<u>Time</u> <u>collected</u>	<u>Date*</u> <u>extracted</u>	<u>Date</u> <u>analyzed</u>	<u>Date*</u> <u>2nd col.</u>
88010214	418.1	1-28-88	1320	2-03-88	2-17-88	
88010214	8010	1-28-88	1320		2-11-88	
88010214	8020	1-28-88	1320		2-11-88	
88010214	PCB	1-28-88	1320	2-02-88	2-23-88	
88010215	418.1	1-28-88	1350	2-03-88	2-17-88	
88010215	8010	1-28-88	1350		2-11-88	
88010215	8020	1-28-88	1350		2-11-88	
88010215	PCB	1-28-88	1350	2-02-88	2-23-88	
88010216	418.1	1-28-88	1415	2-03-88	2-17-88	
88010216	8010	1-28-88	1415		2-10-88	
88010216	8020	1-28-88	1415		2-11-88	
88010216	PCB	1-28-88	1415	2-02-88	2-23-88	
88010217	418.1	1-28-88	1045	2-03-88	2-17-88	
88010217	8010	1-28-88	1045		2-11-88	
88010217	8020	1-28-88	1045		2-11-88	
88010217	PCB	1-28-88	1045	2-02-88	2-23-88	
88010218	418.1	1-28-88	1125	2-03-88	2-17-88	
88010218	8010	1-28-88	1125		2-11-88	
88010218	8020	1-28-88	1125		2-11-88	
88010218	PCB	1-28-88	1125	2-02-88	2-23-88	
88010219	418.1	1-28-88	1145	2-03-88	2-17-88	
88010219	8010	1-28-88	1145		2-11-88	
88010219	8020	1-28-88	1145		2-11-88	
88010219	PCB	1-28-88	1145	2-02-88	2-23-88	

ES

ENGINEERING-SCIENCE, INC.

RESEARCH AND DEVELOPMENT
LABORATORY
600 BANCROFT WAY
BERKELEY, CALIFORNIA 94710
(415) 841-7353

<u>Laboratory Sample No.</u>	<u>Test</u>	<u>Date collected</u>	<u>Time collected</u>	<u>Date* extracted</u>	<u>Date analyzed</u>	<u>Date* 2nd col.</u>
88010220	418.1	1-28-88	1320	2-03-88	2-17-88	
88010220	8010	1-28-88	1320		2-11-88	
88010220	8020	1-28-88	1320		2-11-88	
88010220	PCB	1-28-88	1320	2-02-88	2-23-88	


Laboratory Supervisor

* If applicable



ENGINEERING-SCIENCE, INC.

RESEARCH AND DEVELOPMENT
LABORATORY
600 BANCROFT WAY
BERKELEY, CALIFORNIA 94710
(415) 841-7353

Job No.: AT077
Client: ES Atlanta
Attention: Dan Lane
Address: 57 Executive Park South,
N.E., Suite 590
Atlanta, GA 30329
Project: Volk Field ANGB

Attached are the analytical reports for the soil samples received by
this laboratory on 1-29-88.

Sample preparation data

<u>Laboratory</u> <u>Sample No.</u>	<u>Test</u>	<u>Date</u> <u>collected</u>	<u>Time</u> <u>collected</u>	<u>Date*</u> <u>extracted</u>	<u>Date</u> <u>analyzed</u>	<u>Date*</u> <u>2nd col.</u>
88010214	SW7421	1-28-88	1320		5-11-88	
88010215	SW7421	1-28-88	1350		5-11-88	
88010216	SW7421	1-28-88	1415		5-11-88	
88010217	SW7421	1-28-88	1045		5-12-88	
88010218	SW7421	1-28-88	1125		5-11-88	
88010219	SW7421	1-28-88	1145		5-11-88	
88010220	SW7421	1-28-88	1320		5-11-88	

* If applicable

ES

ENGINEERING-SCIENCE, INC.

RESEARCH AND DEVELOPMENT
LABORATORY
600 BANCROFT WAY
BERKELEY, CALIFORNIA 94710
(415) 841-7353

Job No.: AT077

Client: ES Atlanta

Attention: Jimmy Duncan

Address: 57 Executive Park South,
N.E., Suite 590
Atlanta, GA 30329

Project: Volk Field ANGB

Attached are the analytical reports for the soil samples received by
this laboratory on 2-10-88.

Sample preparation data

<u>Laboratory Sample No.</u>	<u>Test</u>	<u>Date collected</u>	<u>Time collected</u>	<u>Date* extracted</u>	<u>Date analyzed</u>	<u>Date* 2nd col.</u>
88020289	418.1	2-09-88	1015	2-19-88	2-27-88	
88020289	8010	2-09-88	1015		2-16-88	
88020289	8020	2-09-88	1015		2-17-88	
88020289	PCB	2-09-88	1015	2-16-88	2-27-88	
88020290	418.1	2-09-88	1015	2-19-88	2-27-88	
88020290	8010	2-09-88	1015		2-17-88	
88020290	8020	2-09-88	1015		2-17-88	
88020290	PCB	2-09-88	1015	2-16-88	2-27-88	
88020291	418.1	2-09-88	1045	2-19-88	2-27-88	
88020291	8010	2-09-88	1045		2-16-88	
88020291	8020	2-09-88	1045		2-16-88	
88020291	PCB	2-09-88	1045	2-16-88	2-27-88	
88020292	418.1	2-09-88	1125	2-19-88	2-27-88	
88020292	8010	2-09-88	1125		2-19-88	
88020292	8020	2-09-88	1125		2-19-88	
88020292	PCB	2-09-88	1125	2-16-88	2-27-88	
88020293	418.1	2-09-88	1300	2-19-88	2-27-88	
88020293	8010	2-09-88	1300		2-16-88	
88020293	8020	2-09-88	1300		2-16-88	
88020293	PCB	2-09-88	1300	2-16-88	2-27-88	
88020294	418.1	2-09-88	1320	2-19-88	2-27-88	
88020294	8010	2-09-88	1320		2-17-88	
88020294	8020	2-09-88	1320		2-17-88	
88020294	PCB	2-09-88	1320	2-16-88	2-27-88	

ES

ENGINEERING-SCIENCE, INC.

RESEARCH AND DEVELOPMENT
LABORATORY
600 BANCROFT WAY
BERKELEY, CALIFORNIA 94710
(415) 841-7353

<u>Laboratory Sample No.</u>	<u>Test</u>	<u>Date collected</u>	<u>Time collected</u>	<u>Date* extracted</u>	<u>Date analyzed</u>	<u>Date* 2nd col.</u>
88020295	418.1	2-09-88	1340	2-19-88	2-27-88	
88020295	8010	2-09-88	1340		2-23-88	2-19-88
88020295	8020	2-09-88	1340		2-19-88	2-17-88
88020295	PCB	2-09-88	1340	2-16-88	2-27-88	
88020296	418.1	2-09-88	1400	2-19-88	2-27-88	
88020296	8010	2-09-88	1400		2-17-88	
88020296	8020	2-09-88	1400		2-17-88	
88020296	PCB	2-09-88	1400	2-16-88	2-27-88	
88020297	418.1	2-09-88	1500	2-19-88	2-27-88	
88020297	8010	2-09-88	1500		2-17-88	
88020297	8020	2-09-88	1500		2-17-88	
88020297	PCB	2-09-88	1500	2-16-88	2-27-88	
88020298	418.1	2-09-88	1540	2-19-88	2-27-88	
88020298	8010	2-09-88	1540		2-17-88	
88020298	8020	2-09-88	1540		2-17-88	
88020298	PCB	2-09-88	1540	2-16-88	2-27-88	
88020299	418.1	2-09-88	1600	2-20-88	2-27-88	
88020299	8010	2-09-88	1600		2-17-88	
88020299	8020	2-09-88	1600		2-17-88	
88020299	PCB	2-09-88	1600	2-16-88	2-27-88	
88020300	418.1	2-09-88	1600	2-20-88	2-27-88	
88020300	8010	2-09-88	1600		2-17-88	
88020300	8020	2-09-88	1600		2-17-88	
88020300	PCB	2-09-88	1600	2-16-88	2-27-88	


Laboratory Supervisor

* If applicable



ENGINEERING-SCIENCE, INC.

RESEARCH AND DEVELOPMENT
LABORATORY
600 BANCROFT WAY
BERKELEY, CALIFORNIA 94710
(415) 841-7353

Job No.: AT077
Client: ES Atlanta
Attention: Dan Lane
Address: 57 Executive Park South,
N.E., Suite 590
Atlanta, GA 30329
Project: Volk Field ANGB

Attached are the analytical reports for the soil samples received by
this laboratory on 2-10-88.

Sample preparation data

<u>Laboratory</u> <u>Sample No.</u>	<u>Test</u>	<u>Date</u> <u>collected</u>	<u>Time</u> <u>collected</u>	<u>Date*</u> <u>extracted</u>	<u>Date</u> <u>analyzed</u>	<u>Date*</u> <u>2nd col.</u>
88020289	SW7421	2-09-88	1015		5-11-88	
88020290	SW7421	2-09-88	1015		5-12-88	
88020291	SW7421	2-09-88	1045		5-11-88	
88020292	SW7421	2-09-88	1125		5-11-88	
88020293	SW7421	2-09-88	1300		5-11-88	
88020294	SW7421	2-09-88	1320		5-11-88	
88020295	SW7421	2-09-88	1340		5-11-88	
88020296	SW7421	2-09-88	1400		5-11-88	
88020297	SW7421	2-09-88	1500		5-11-88	
88020298	SW7421	2-09-88	1540		5-11-88	
88020299	SW7421	2-09-88	1600		5-11-88	
88020300	SW7421	2-09-88	1600		5-11-88	

* If applicable

**ENGINEERING-SCIENCE, INC.**

RESEARCH AND DEVELOPMENT
LABORATORY
800 BANCROFT WAY
BERKELEY, CALIFORNIA 94710
(415) 841-7353

Job No.: AT077

Client: ES Atlanta

Attention: Jimmy Duncan

Address: 57 Executive Park South,
N.E., Suite 590
Atlanta, GA 30329

Project: Volk Field ANGB

Attached are the analytical reports for the soil samples received by
this laboratory on 2-11-88.

Sample preparation data

<u>Laboratory Sample No.</u>	<u>Test</u>	<u>Date collected</u>	<u>Time collected</u>	<u>Date* extracted</u>	<u>Date analyzed</u>	<u>Date* 2nd col.</u>
88020371	418.1	2-10-88	1330	2-20-88	2-27-88	
88020371	8010	2-10-88	1330		2-17-88	
88020371	8020	2-10-88	1330		2-17-88	
88020371	PCB	2-10-88	1330	2-23-88	2-27-88	
88020372	418.1	2-10-88	1350	2-20-88	2-27-88	
88020372	8010	2-10-88	1350		2-17-88	
88020372	8020	2-10-88	1350		2-17-88	
88020372	PCB	2-10-88	1350	2-23-88	2-27-88	
88020373	418.1	2-10-88	1500	2-20-88	2-28-88	
88020373	8010	2-10-88	1500		2-17-88	
88020373	8020	2-10-88	1500		2-17-88	
88020373	PCB	2-10-88	1500	2-23-88	2-27-88	
88020374	418.1	2-10-88	1510	2-20-88	2-28-88	
88020374	8010	2-10-88	1510		2-18-88	
88020374	8020	2-10-88	1510		2-18-88	
88020374	PCB	2-10-88	1510	2-23-88	2-27-88	
88020375	418.1	2-10-88	1000	2-20-88	2-28-88	
88020375	8010	2-10-88	1000		2-18-88	
88020375	8020	2-10-88	1000		2-18-88	
88020375	PCB	2-10-88	1000	2-23-88	2-27-88	
88020376	418.1	2-10-88	1015	2-20-88	2-28-88	
88020376	8010	2-10-88	1015		2-19-88	
88020376	8020	2-10-88	1015		2-19-88	
88020376	PCB	2-10-88	1015	2-23-88	2-27-88	

178.12.10

A SUBSIDIARY OF THE PARSONS CORPORATION

ES

ENGINEERING-SCIENCE, INC.

RESEARCH AND DEVELOPMENT
LABORATORY
600 BANCROFT WAY
BERKELEY, CALIFORNIA 94710
(415) 841-7353

<u>Laboratory Sample No.</u>	<u>Test</u>	<u>Date collected</u>	<u>Time collected</u>	<u>Date* extracted</u>	<u>Date analyzed</u>	<u>Date* 2nd col.</u>
88020377	418.1	2-10-88	1100	2-20-88	2-28-88	
88020377	8010	2-10-88	1100		2-19-88	
88020377	8020	2-10-88	1100		2-19-88	
88020377	PCB	2-10-88	1100	2-23-88	2-27-88	
88020378	418.1	2-10-88	1230	2-20-88	2-28-88	
88020378	8010	2-10-88	1230		2-19-88	
88020378	8020	2-10-88	1230		2-19-88	
88020378	PCB	2-10-88	1230	2-23-88	2-27-88	


Laboratory Supervisor

* If applicable



ENGINEERING-SCIENCE, INC.

RESEARCH AND DEVELOPMENT
LABORATORY
600 BANCROFT WAY
BERKELEY, CALIFORNIA 94710
(415) 841-7353

Job No.: AT077
Client: ES Atlanta
Attention: Dan Lane
Address: 57 Executive Park South,
N.E., Suite 590
Atlanta, GA 30329
Project: Volk Field ANGB

Attached are the analytical reports for the soil samples received by
this laboratory on 2-11-88.

Sample preparation data

<u>Laboratory</u> <u>Sample No.</u>	<u>Test</u>	<u>Date</u> <u>collected</u>	<u>Time</u> <u>collected</u>	<u>Date*</u> <u>extracted</u>	<u>Date</u> <u>analyzed</u>	<u>Date*</u> <u>2nd col.</u>
88020371	SW7421	2-10-88	1330		5-11-88	
88020372	SW7421	2-10-88	1350		5-11-88	
88020373	SW7421	2-10-88	1500		5-11-88	
88020374	SW7421	2-10-88	1510		5-11-88	
88020375	SW7421	2-10-88	1000		5-11-88	
88020376	SW7421	2-10-88	1015		5-11-88	
88020377	SW7421	2-10-88	1100		5-11-88	
88020378	SW7421	2-10-88	1230		5-11-88	

* If applicable



ENGINEERING-SCIENCE, INC.

RESEARCH AND DEVELOPMENT
LABORATORY
600 BANCROFT WAY
BERKELEY, CALIFORNIA 94710
(415) 841-7353

Job No.: AT077

Client: ES Atlanta
Attention: Dan Lane
Address: 57 Executive Park South
N. E. - Suite 590
Atlanta, Ga. 30329

Project: Volk Field ANGB

Attached are the analytical reports for the water samples received by this laboratory on 3-10-88.

Sample Preparation Data

Laboratory Sample No.	Test	Date collected	Time collected	Date* extracted	Date analyzed	Date* 2nd col.
88030572	239.2	3-09-88	1130		5-06-88	
88030573	239.2	3-09-88	1030		5-06-88	
88030574	PPM	3-09-88	0800		5-05-88	
88030575	239.2	3-09-88	0900		5-06-88	
88030576	239.2	3-09-88	0930		5-06-88	

* If applicable



ENGINEERING-SCIENCE, INC.

RESEARCH AND DEVELOPMENT
LABORATORY
600 BANCROFT WAY
BERKELEY, CALIFORNIA 94710
(415) 841-7353

Job No.: AT077
Client: ES Atlanta
Attention: Jimmy Duncan
Address: 57 Executive Park South,
N.E., Suite 590
Atlanta, GA 30329
Project: Volk Field ANGB

Attached are the analytical reports for the water samples received
by this laboratory on 3-05-88.

Sample preparation data

<u>Laboratory</u> <u>Sample No.</u>	<u>Test</u>	<u>Date</u> <u>collected</u>	<u>Time</u> <u>collected</u>	<u>Date*</u> <u>extracted</u>	<u>Date</u> <u>analyzed</u>	<u>Date*</u> <u>2nd col.</u>
88030536	418.1	3-04-88	0915	3-10-88	3-18-88	
88030536	TDS	3-04-88	0915		3-10-88	
88030536	601	3-04-88	0915		3-15-88	
88030536	608	3-04-88	0915	3-08-88	3-12-88	
88030536	8020	3-04-88	0915		3-15-88	
88030537	418.1	3-04-88	1500	3-10-88	3-18-88	
88030537	TDS	3-04-88	1500		3-10-88	
88030537	601	3-04-88	1500		3-18-88	
88030537	8020	3-04-88	1500		3-18-88	3-18-88
88030537	PCB	3-04-88	1500	3-08-88	3-23-88	
88030538	418.1	3-04-88	1600	3-10-88	3-18-88	
88030538	TDS	3-04-88	1600		3-10-88	
88030538	601	3-04-88	1600		3-15-88	
88030538	8020	3-04-88	1600		3-15-88	3-12-88
88030538	PCB	3-04-88	1600	3-08-88	3-23-88	
88030539	418.1	3-04-88	1130	3-15-88	3-18-88	
88030539	TDS	3-04-88	1130		3-10-88	
88030539	601	3-04-88	1130		3-15-88	
88030539	608	3-04-88	1130	3-08-88	3-18-88	
88030539	8020	3-04-88	1130		3-15-88	
88030540	418.1	3-04-88	1545	3-15-88	3-18-88	
88030540	TDS	3-04-88	1545		3-10-88	
88030540	601	3-04-88	1545		3-15-88	
88030540	8020	3-04-88	1545		3-15-88	3-11-88
88030540	PCB	3-04-88	1545	3-08-88	3-23-88	

178.12.4

ES

ENGINEERING-SCIENCE, INC.

RESEARCH AND DEVELOPMENT
LABORATORY
600 BANCROFT WAY
BERKELEY, CALIFORNIA 94710
(415) 841-7353

<u>Laboratory Sample No.</u>	<u>Test</u>	<u>Date collected</u>	<u>Time collected</u>	<u>Date* extracted</u>	<u>Date analyzed</u>	<u>Date* 2nd col.</u>
88030541	418.1	3-04-88	1400	3-15-88	3-18-88	
88030541	601	3-04-88	1400		3-17-88	
88030541	8020	3-04-88	1400		3-17-88	3-12-88
88030542	601	3-04-88	0800		3-15-88	
88030542	8020	3-04-88	0800		3-15-88	



Laboratory Supervisor

* If applicable



ENGINEERING-SCIENCE, INC.

RESEARCH AND DEVELOPMENT
LABORATORY
600 BANCROFT WAY
BERKELEY, CALIFORNIA 94710
(415) 841-7353

Job No.: At077
Client: ES Atlanta
Attention: Dan Lane
Address: 57 Executive Park South,
N.E., Suite 590
Atlanta, GA 30329
Project: Volk Field ANGB

Attached are the analytical reports for the water samples received
by this laboratory on 3-05-88.

Sample preparation data

<u>Laboratory</u> <u>Sample No.</u>	<u>Test</u>	<u>Date</u> <u>collected</u>	<u>Time</u> <u>collected</u>	<u>Date*</u> <u>extracted</u>	<u>Date</u> <u>analyzed</u>	<u>Date*</u> <u>2nd col.</u>
88030536	PPM	3-04-88	0915			5-04-88
88030537	239.2	3-04-88	1500			5-05-88
88030538	239.2	3-04-88	1600			5-05-88
88030539	PPM	3-04-88	1130			5-04-88
88030540	239.2	3-04-88	1545			5-05-88
88030541	239.2	3-04-88	1400			5-05-88

* If applicable

ENGINEERING-SCIENCE, INC.600 BANCROFT WAY
BERKELEY, CALIFORNIA 94710
(415) 548-7970REVISED REPORT
JUNE 10, 1988

Job No.: AT077

Client: ES Atlanta
Attention: Jimmy Duncan
Address: 57 Executive Park South
N. E. - Suite 590
Atlanta, Ga. 30329

Project: Volk Field ANGB

Attached are the analytical reports for the water samples received by this laboratory on 3-08-88.

Sample Preparation Data

Laboratory Sample No.	Test	Date collected	Time collected	Date* extracted	Date analyzed	Date* 2nd col.
88030551	418.1	3-06-88	1330	3-15-88	3-18-88	
88030551	TDS	3-06-88	1330		3-10-88	
88030551	601	3-06-88	1330		3-15-88	
88030551	608	3-06-88	1330	3-10-88	3-22-88	
88030551	8020	3-06-88	1330		3-15-88	
88030552	418.1	3-07-88	1430	3-15-88	3-18-88	
88030552	TDS	3-07-88	1430		3-10-88	
88030552	601	3-07-88	1430		3-16-88	
88030552	608	3-07-88	1430	3-10-88	3-22-88	
88030552	8020	3-07-88	1430		3-16-88	
88030553	418.1	3-07-88	1500	3-15-88	3-18-88	
88030553	TDS	3-07-88	1500		3-10-88	
88030553	601	3-07-88	1500		3-16-88	
88030553	608	3-07-88	1500	3-10-88	3-22-88	
88030553	8020	3-07-88	1500		3-16-88	
88030554	418.1	3-06-88	1530	3-15-88	3-18-88	
88030554	TDS	3-06-88	1530		3-10-88	
88030554	601	3-06-88	1530		3-17-88	3-18-88
88030554	PCB	3-06-88	1530	3-10-88	3-23-88	
88030554	8020	3-06-88	1530		3-17-88	3-18-88
88030555	418.1	3-07-88	0845	3-15-88	3-18-88	
88030555	601	3-07-88	0845		3-13-88	
88030555	8020	3-07-88	0845		3-18-88	
88030556	418.1	3-07-88	1345	3-15-88	3-18-88	
88030556	TDS	3-07-88	1345		3-10-88	
88030556	601	3-07-88	1345		3-18-88	
88030556	608	3-07-88	1345	3-10-88	3-22-88	
88030556	8020	3-07-88	1345		3-18-88	

This page was intentionally left blank.

ES**ENGINEERING-SCIENCE, INC.**RESEARCH AND DEVELOPMENT
LABORATORY
600 BANCROFT WAY
BERKELEY, CALIFORNIA 94710
(415) 841-7353

<u>Laboratory Sample No.</u>	<u>Test</u>	<u>Date collected</u>	<u>Time collected</u>	<u>Date* extracted</u>	<u>Date analyzed</u>	<u>Date* 2nd col.</u>
88030557	418.1	3-06-88	1400	3-15-88	3-18-88	
88030557	TDS	3-06-88	1400		3-10-88	
88030557	601	3-06-88	1400		3-16-88	
88030557	608	3-06-88	1400	3-10-88	3-22-88	
88030557	8020	3-06-88	1400		3-16-88	
88030558	418.1	3-07-88	0930	3-16-88	3-19-88	
88030558	601	3-07-88	0930		3-16-88	
88030558	8020	3-07-88	0930		3-16-88	
88030559	418.1	3-07-88	1015	3-16-88	3-19-88	
88030559	601	3-07-88	1015		3-16-88	
88030559	8020	3-07-88	1015		3-16-88	
88030560	418.1	3-07-88	1100	3-16-88	3-19-88	
88030560	601	3-07-88	1100		3-18-88	
88030560	8020	3-07-88	1100		3-18-88	3-18-88
88030561	418.1	3-07-88	1045	3-16-88	3-19-88	
88030561	601	3-07-88	1045		3-18-88	
88030561	8020	3-07-88	1045		3-18-88	3-18-88
88030562	418.1	3-06-88	1100	3-16-88	3-19-88	
88030562	TDS	3-06-88	1100		3-10-88	
88030562	601	3-06-88	1100		3-16-88	
88030562	608	3-06-88	1100	3-10-88	3-22-88	
88030562	8020	3-06-88	1100		3-16-88	
88030563	601	3-07-88	1530		3-17-88	
88030563	8020	3-07-88	1530		3-17-88	


Laboratory Supervisor

* If applicable



ENGINEERING-SCIENCE, INC.

RESEARCH AND DEVELOPMENT
LABORATORY
600 BANCROFT WAY
BERKELEY, CALIFORNIA 94710
(415) 841-7353

Job No.: AT077

Client: ES Atlanta
Attention: Dan Lane
Address: 57 Executive Park South
N. E. - Suite 590
Atlanta, Ga. 30329

Project: Volk Field ANGB

Attached are the analytical reports for the water samples received by this laboratory on 3-08-88.

Sample Preparation Data

Laboratory Sample No.	Test	Date collected	Time collected	Date* extracted	Date analyzed	Date* 2nd col.
88030551	PPM	3-06-88	1330		5-05-88	
88030552	PPM	3-07-88	1430		5-05-88	
88030553	PPM	3-07-88	1500		5-05-88	
88030554	239.2	3-06-88	1530		5-04-88	
88030555	239.2	3-07-88	0845		5-04-88	
88030556	PPM	3-07-88	1345		5-05-88	
88030557	PPM	3-06-88	1400		5-05-88	
88030558	239.2	3-07-88	0930		5-04-88	
88030559	239.2	3-07-88	1015		5-04-88	
88030560	239.2	3-07-88	1100		5-04-88	
88030561	239.2	3-07-88	1045		5-04-88	
88030562	PPM	3-06-88	1100		5-05-88	

* If applicable

88-A1-VOLK0072 1

CL-FRM01

**ENGINEERING-SCIENCE, INC.**

RESEARCH AND DEVELOPMENT
LABORATORY
600 BANCROFT WAY
BERKELEY, CALIFORNIA 94710
(415) 841-7353

Job No.: AT077

Client: ES Atlanta

Attention: Jimmy Duncan

Address: 57 Executive Park South,
N.E., Suite 590
Atlanta, GA 30329

Project: Volk Field ANGB

Attached are the analytical reports for the water samples received
by this laboratory on 3-09-88.

Sample preparation data

<u>Laboratory</u> <u>Sample No.</u>	<u>Test</u>	<u>Date</u> <u>collected</u>	<u>Time</u> <u>collected</u>	<u>Date*</u> <u>extracted</u>	<u>Date</u> <u>analyzed</u>	<u>Date*</u> <u>2nd col.</u>
88030565	418.1	3-08-88	0800	3-16-88	3-19-88	
88030565	TDS	3-08-88	0800		3-15-88	
88030565	601	3-08-88	0800		3-22-88	
88030565	8020	3-08-88	0800		3-22-88	
88030565	PCB	3-08-88	0800	3-10-88	3-23-88	
88030566	418.1	3-08-88	0930	3-16-88	3-19-88	
88030566	TDS	3-08-88	0930		3-15-88	
88030566	601	3-08-88	0930		3-18-88	3-21-88
88030566	8020	3-08-88	0930		3-18-88	3-21-88
88030566	PCB	3-08-88	0930	3-10-88	3-23-88	
88030567	418.1	3-08-88	1115	3-16-88	3-19-88	
88030567	TDS	3-08-88	1115		3-15-88	
88030567	601	3-08-88	1115		3-18-88	
88030567	8020	3-08-88	1115		3-18-88	
88030567	PCB	3-08-88	1115	3-10-88	3-23-88	
88030568	418.1	3-08-88	1345	3-17-88	3-19-88	
88030568	TDS	3-08-88	1345		3-15-88	
88030568	601	3-08-88	1345		3-18-88	
88030568	8020	3-08-88	1345		3-18-88	
88030568	PCB	3-08-88	1345	3-10-88	3-23-88	
88030569	418.1	3-08-88	1500	3-17-88	3-19-88	
88030569	TDS	3-08-88	1500		3-15-88	
88030569	601	3-08-88	1500		3-14-88	3-18-88
88030569	8020	3-08-88	1500		3-21-88	3-22-88
88030569	PCB	3-08-88	1500	3-10-88	3-23-88	
88030570	601	3-08-88	0800		3-18-88	
88030570	8020	3-08-88	0800		3-18-88	


Laboratory Supervisor

* If applicable

A SUBSIDIARY OF THE PARSONS CORPORATION

178.12.9

E-523

ES

ENGINEERING-SCIENCE, INC.

RESEARCH AND DEVELOPMENT
LABORATORY
600 BANCROFT WAY
BERKELEY, CALIFORNIA 94710
(415) 841-7353

Job No.: At077
Client: ES Atlanta
Attention: Dan Lane
Address: 57 Executive Park South,
N.E., Suite 590
Atlanta, GA 30329
Project: Volk Field ANGB

Attached are the analytical reports for the water samples received
by this laboratory on 3-09-88.

Sample preparation data

<u>Laboratory</u> <u>Sample No.</u>	<u>Test</u>	<u>Date</u> <u>collected</u>	<u>Time</u> <u>collected</u>	<u>Date*</u> <u>extracted</u>	<u>Date</u> <u>analyzed</u>	<u>Date*</u> <u>2nd col.</u>
88030565	239.2	3-08-88	0800		5-06-88	
88030566	239.2	3-08-88	0930		5-06-88	
88030567	239.2	3-08-88	1115		5-06-88	
88030568	239.2	3-08-88	1345		5-06-88	
88030569	239.2	3-08-88	1500		5-06-88	

* If applicable

**ENGINEERING-SCIENCE, INC.**

RESEARCH AND DEVELOPMENT
LABORATORY
600 BANCROFT WAY
BERKELEY, CALIFORNIA 94710
(415) 841-7353

Job No.: AT077

Client: ES Atlanta

Attention: Jimmy Duncan

Address: 57 Executive Park South,

N.E., Suite 590

Atlanta, GA 30329

Project: Volk Field ANGB

Attached are the analytical reports for the water samples received
by this laboratory on 3-10-88.

Sample preparation data

<u>Laboratory Sample No.</u>	<u>Test</u>	<u>Date collected</u>	<u>Time collected</u>	<u>Date* extracted</u>	<u>Date analyzed</u>	<u>Date* 2nd col.</u>
88030572	601	3-09-88	1130		3-18-88	3-14-88
88030572	8020	3-09-88	1130		3-22-88	3-22-88
88030572	PCB	3-09-88	1130	3-14-88	3-23-88	
88030572	418.1	3-09-88	1130	3-16-88	3-19-88	
88030572	TDS	3-09-88	1130		3-15-88	
88030573	601	3-09-88	1030		3-18-88	3-14-88
88030573	8020	3-09-88	1030		3-23-88	3-23-88
88030573	PCB	3-09-88	1030	3-14-88	3-23-88	
88030573	418.1	3-09-88	1030	3-16-88	3-19-88	
88030573	TDS	3-09-88	1030		3-15-88	
88030574	601	3-09-88	0800		3-22-88	
88030574	8020	3-09-88	0800		3-22-88	
88030574	608	3-09-88	0800	3-14-88	3-23-88	
88030574	418.1	3-09-88	0800	3-17-88	3-19-88	
88030574	TDS	3-09-88	0800		3-15-88	
88030575	601	3-09-88	0900		3-18-88	3-22-88
88030575	8020	3-09-88	0900		3-22-88	3-22-88
88030575	PCB	3-09-88	0900	3-14-88	3-24-88	
88030575	418.1	3-09-88	0900	3-17-88	3-19-88	
88030575	TDS	3-09-88	0900		3-15-88	
88030576	601	3-09-88	0930		3-22-88	
88030576	8020	3-09-88	0930		3-22-88	
88030576	PCB	3-09-88	0930	3-14-88	3-24-88	
88030576	418.1	3-09-88	0930	3-17-88	3-19-88	
88030576	TDS	3-09-88	0930		3-15-88	
88030577	601	3-09-88	0830		3-22-88	
88030577	8020	3-09-88	0830		3-22-88	


Laboratory Supervisor

* If applicable



ENGINEERING-SCIENCE, INC.

600 BANCROFT WAY
BERKELEY, CALIFORNIA 94710
(415) 548-7970

Job No.: AT077

Client: ES Atlanta
Attention: Dan Lane
Address: 57 Executive Park South
N. E. - Suite 590
Atlanta, Ga. 30329

Project: Volk Field ANGB

Attached are the analytical reports for the water samples received
by this laboratory on 7-08-88.

Sample Preparation Data

Laboratory Sample No.	Client Sample ID	Test	Date collected	Date* extracted	Date analyzed	Date* 2nd col.
88071335	VF950 GW-1 ES	601	7-07-88		7-19-88	7-18-88
88071335	VF950 GW-1 ES	8020	7-07-88		7-19-88	
88071336	Trip Blank	601	7-07-88		7-18-88	7-18-88
88071336	Trip Blank	8020	7-07-88		7-18-88	
88071337	VF934 GW-1 ES	601	7-07-88		7-18-88	7-18-88
88071337	VF934 GW-1 ES	8020	7-07-88		7-18-88	
88071338	VF916 GW-1 ES	601	7-07-88		7-18-88	7-18-88
88071338	VF916 GR-1 ES	8020	7-07-88		7-18-88	

* If applicable

CHAIN OF CUSTODY RECORDS

467-1

[illegible]

Distribution: Original Accompanies Shipment, Copy to Coordinated Field Files

467-2

E-528

Original Accompanies Shipment, Copy to Coordinator Field Files

467-3

2

Distribution. Original accompanying Shipment, Copy in Coordinator Field File.

467-4

[illegible]

Distribution: Original Accompanies Shipment, Copy to Coordinator Field Files

CHAIN OF CUSTODY RECORD

[illegible]

Distribution: Original Accompanying Document, Copy to Coordinator Field Files

472-2

CHAIN OF CUSTODY RECORD

Distribution: Original Accompanies Shipment, Copy to Coordinator Field Files

CHAIN OF CUSTODY RECORD

472-3

[illegible]

1-4Eh

shipment

CHAIN OF CUSTODY RECORD

474-2

[illegible]

Discussion with Royce Bonner 2/10 sample in question
most likely 0292. However, ~~it~~ either traces void

489-2

Distribution: Original Accompanies Shipment, Copy to Coordinator Field Files

CHAIN OF CUSTODY RECORD

2-35

E-539

CHAIN OF CUSTODY RECORD

[illegible]

CHAIN OF CUSTODY RECORD

1-035

Distribution: Original Accompanying Shipment, Copy to Coordinator Field Files

500-2

Distribution: Original Accompanies Shipment, Copy to Coordinator Field Files

CHAIN OF CUSTODY RECORD

530.5

[illegible]

CHAIN OF CUSTODY RECORD

530-6

E-544

CHAIN OF CUSTODY RECORD

E-543

CHAIN OF CUSTODY RECORD

534-551
533-4

E-546

CHAIN OF CUSTODY RECORD

534-10
~~533-7~~

[illegible]

534-11
~~533-11~~

534-11
~~533-11~~

E-548

CHAIN OF CUSTODY RECORD

538-1

E-549

CHAIN OF CUSTODY RECORD

[illegible]

CHAIN OF CUSTODY RECORD

[illegible]

CHAIN OF CUSTODY RECORD

538-4

E-552

CHAIN OF CUSTODY RECORD

538.5

[illegible]

CHAIN OF CUSTODY RECORD

538-6

[illegible]

CHAIN OF CUSTODY RECORD

[illegible]

E-555

CHAIN OF CUSTODY RECORD

536-2

[illegible]

CHAIN OF CUSTODY RECORD

536-3

E-557

CHAIN OF CUSTODY RECORD

E-558

CHAIN OF CUSTODY RECORD

536-5

[illegible]

CHAIN OF CUSTODY RECORD

E-560

CHAIN OF CUSTODY RECORD

536-7

[illegible]

APPENDIX F
QUALITY ASSURANCE REPORT

APPENDIX F

QUALITY ASSURANCE REPORT

This appendix presents a summary and review of quality assurance and quality control results for laboratory analysis of water, sediment, and soil samples collected as part of the field program for the Remedial Investigation at Volk Field, Wisconsin. The analyses were performed by ES Research and Development Laboratories in Berkeley, California.

The documentation reporting results of analyses for environmental, laboratory quality control, field duplicate, trip blank, and equipment rinsate samples were reviewed to assess the completeness, representativeness, precision and accuracy of the analytical results. The completeness of the analysis was determined by comparison of tests requested versus analyses results obtained; these data are shown as collection and analyses dates for each sample and test in Tables F.1 and F.2. Representativeness was evaluated from the analysis results obtained for trip blanks, field blanks, bailer rinsate blanks and coded field duplicate samples; these data are presented in Tables F.3, F.4 and F.5. Precision and accuracy were assessed by comparison of duplicate analyses results and spiked sample percentage recoveries respectively; these data are presented in the Attachment following Table F.5.

F.1 HOLDING TIMES

Holding times were met for all analyses on groundwater, surface water, and soil samples. Dates of collection, extraction and analysis for all water samples are presented in Table F.1. Those for soil samples are presented in Table F.2. In both tables, the holding time in days from collection is given in parentheses after the extraction or analysis date, except for the analysis of PCBs and semi-volatile organics. For these analyses, the holding time begins with the date of extraction, as required by the methods.

F.2 COMPLETENESS

All analyses were completed with valid data. The report exceeds the completeness criteria of 90 percent.

F.3 FIELD QUALITY CONTROL SAMPLES

Field quality control samples consisted of trip blanks, bailer rinsate blanks, field blanks and coded field duplicates. Trip blanks are samples of laboratory-pure water shipped with the sampling containers, and are not opened once sealed by the laboratory. They serve to detect potential sample contamination during shipment, handling and storage of samples between collection and analysis. One trip blank accompanies each container of samples for volatiles analysis. No analytes were detected in any of the trip blanks. These data are presented in Table F.3.

During the course of sampling for water samples, three bailer rinsate samples were collected. The only analytes detected were copper (in one sample), lead (one sample) and zinc (two samples). The copper and one of the zinc analyses showed concentrations near the detection limits. The bailer rinsate from March 3, 1988, however, indicated that very small amounts of lead (7 ug/L) and zinc (10 ug/L) could have been introduced into the environmental samples during collection. Therefore, analysis results for lead and zinc collected between March 3 and March 6 should be noted as possible contamination or as estimated values unless the sample concentrations exceed those found in the rinsate blank by a factor of 5. These data are presented in Table F.3.

One field (source water) blank was collected. This sample also showed very low concentrations of both copper and zinc. These levels, however, are below the quantifiable range and are therefore indicated as "trace" with an estimated quantity. These data are presented in Table F.3.

Coded field duplicate samples were collected for both soil samples and groundwater and surface water samples. Both the actual and the coded sample identifiers and the analysis results of both the coded and correctly identified samples, along with the mean and the relative percent difference (RPD) are presented in Table F.4 (soil samples) and Table F.5 (water samples).

For soil samples the analyses indicate that the sample collection was representative. While the numerical values of the RPD of some of the purgeable halocarbons and of the aromatic volatile organics were somewhat large, analytes present in one duplicate were also present in the other; those absent in one were absent in the others. Given the heterogenous nature of soil and the volatility of the compounds, the data for soil samples should be considered representative.

For the water samples, the numerical values of the RPD (where calculated) were much smaller than those found for soil samples. One groundwater sample, however, showed both naphthalene and bis(2-ethylhexyl)phthalate which were absent in the coded duplicate. Toluene was detected in another groundwater sample while being absent from the duplicate sample. All are present below 10 ug/L, however, so these levels are not considered significant. Analysis results of the water samples should, therefore, be considered representative of the groundwater and surface waters at Volk Field, except for the caveat on zinc and lead noted above.

F.4 LABORATORY QUALITY CONTROL DATA

Laboratory Quality Control Data consist of the results obtained from the analysis of laboratory blanks, laboratory control samples, surrogate spikes, spiked samples, and laboratory duplicate samples. Laboratory blank analysis results should be less than the detection limit for all analytes.

A laboratory control sample is a sample of known concentration that is analyzed as an additional sample of the sample set. The PR of these samples indicates whether the analysis system is in control. The use of laboratory control samples is standard ES laboratory policy. The results of these samples for PCBs are included and indicate the analytical system was within the control limits dictated by EPA guidelines.

Surrogate spike compounds are analytes added to each sample at a known concentration. The recovery of these compounds may be determined and indicate whether the matrix of the sample is affecting the analytical results. The use of surrogate spikes is required for some methods but only recommended for other in the published EPA methodology. The results of these surrogate spikes are presented in the Attachment. The data indicate that the analysis systems for PCBs, volatile organic compounds, and semi-volatile organic compounds were within control as specified by EPA guidelines.

F.4.1 Metals Analyses Criteria

A relative percentage difference (RPD) of less than 20 percent is normally used as a guide for assessment of precision for duplicate analyses on samples containing analyte at concentrations greater than five times the method detection limit. The uncertainty of quantitation increases greatly at lower concentrations.

Thus, the analyte concentration was considered in addition to the RPD value for determination of the acceptability of analytical precision for a test. The heterogeneous nature of soil and sediment samples also must be considered in evaluation of precision.

Accuracy of analytical results is measured as the percentage recovery (PR) of a laboratory sample spike. For analyte concentrations within the quantitation range, a PR between 80 and 120 percent is generally considered acceptable. Larger deviations from 100 percent should be expected for samples for which the unspiked analysis result is near or below the quantitation limit. Heterogeneity of soil and sediment samples also affects the PR. Thus, the sample type and ambient analyte concentration were considered in addition to the PR in determining the acceptability of analytical accuracy for a test.

F.4.2 Organic Analyses Criteria

For organic methods of analysis, each method specifies the precision and recovery criteria required for that method. The limitations are again set at five times the method detection limit, unless the method specifies otherwise.

F.4.3 Laboratory Results

In all cases, laboratory blank analysis results were below required detection limits. In some cases, RPD or PR criteria were not met for some samples, but other laboratory data (laboratory control sample analysis) indicated that the analysis system was in control. This is an indication of a matrix and not a laboratory problem which does not invalidate the analysis results. Whenever this occurred, an explanation was given in the accompanying Case Narrative, or on the QC report. In all cases, the data presented indicate that the data are acceptable. All laboratory quality control data are presented in the Attachment.

TABLE F.1
SUMMARY OF HOLDING TIMES
FOR GROUND WATER SAMPLES

SAMPLE IDENTIFIER	DATE SAMPLED	PURGEABLE	AROMATIC	TOTAL	PETROLEUM	ORGANOCHLORINE		SEMI-VOLATILE	LEAD	
		HALOCARBOHS	VOLATILE	DISSOLVED	HYDROCARBOHS	PESTICIDES		ORGANICS	ANALYSIS	
		SM8010/K601	SM8020/K602	SOLIDS	K418.1	AND PCB'S		K625	(K239.2)	
		(14 DAYS)	(14 DAYS)	(7 DAYS)	(28 DAYS)	(7 DAYS)	(40 DAYS)	(7 DAYS)	(40 DAYS)	(180 DAYS)
						EXTRACTED	ANALYZED	EXTRACTED	ANALYZED	
FINE TRAINING AREA - SITE 1										
VF-1-W1-GW1-RS	3-4-88	3-15-88(11)	3-15-88(11)	3-10-88(6)	3-18-88(14)	3-8-88(4)	3-23-88(15)	3-7-88(3)	3-17-88(10)	5-5-88(62)
VF-1-W2-GW1-RS	3-8-88	3-18-88(10)	3-18-88(10)	3-15-88(7)	3-19-88(11)	3-10-88(2)	3-23-88(13)	3-12-88(4)	4-8-88(27)	5-6-88(59)
VF-1-W3-GW1-RS	3-6-88	3-17-88(11)	3-17-88(11)	3-10-88(4)	3-18-88(12)	3-10-88(4)	3-23-88(13)	3-11-88(5)	4-11-88(31)	5-4-88(59)
VF-1-W4-GW1-RS	3-4-88	3-18-88(14)	3-18-88(14)	3-10-88(6)	3-18-88(14)	3-8-88(4)	3-23-88(15)	3-7-88(3)	3-18-88(11)	5-5-88(62)
VF-1-W5-GW1-RS (a)	3-4-88	3-15-88(11)	3-15-88(11)	3-10-88(6)	3-18-88(14)	3-8-88(4)	3-23-88(15)	3-7-88(3)	3-18-88(11)	5-5-88(62)
VF-1-E71-GW1-RS	3-8-88	3-18-88(10)	3-18-88(10)	3-15-88(7)	3-19-88(11)	3-10-88(2)	3-23-88(13)	3-12-88(4)	4-12-88(31)	5-6-88(59)
VF-1-E72-GW1-RS	3-8-88	3-18-88(10)	3-18-88(10)	3-15-88(7)	3-19-88(11)	3-10-88(2)	3-23-88(13)	3-14-88(6)	4-12-88(29)	5-6-88(59)
VF-1-E73-GW1-RS	3-8-88	3-14-88(6)	3-21-88(13)	3-15-88(7)	3-19-88(11)	3-10-88(2)	3-23-88(13)	3-12-88(4)	4-13-88(32)	5-6-88(59)
VF-1-E74-GW1-RS	3-9-88	3-18-88(9)	3-23-88(14)	3-15-88(6)	3-19-88(10)	3-14-88(5)	3-23-88(9)	3-14-88(5)	4-13-88(30)	5-6-88(58)
VF-1-E75-GW1-RS	3-9-88	3-18-88(9)	3-22-88(13)	3-15-88(6)	3-19-88(10)	3-14-88(5)	3-23-88(9)	3-14-88(5)	4-13-88(30)	5-6-88(58)
VF-1-E76-GW1-RS	3-9-88	3-22-88(13)	3-22-88(13)	3-15-88(6)	3-19-88(10)	3-14-88(5)	3-24-88(10)	3-14-88(5)	4-14-88(31)	5-6-88(58)
VF-1-E77-GW1-RS	3-9-88	3-18-88(9)	3-22-88(13)	3-15-88(6)	3-19-88(10)	3-14-88(5)	3-24-88(10)	3-14-88(5)	4-14-88(31)	5-6-88(58)

(a) - This sample was a coded field duplicate of the sample listed above it in this table.

TABLE F.2
SUMMARY OF HOLDING TIMES FOR
SOIL SAMPLES

SAMPLE IDENTIFIER	DATE SAMPLED	PURGEABLE HALOCARBONS (SUM010)	AROMATIC VOLATILE ORGANICS (SUM020)	PETROLEUM HYDROCARBONS (K010.1)	ORGANOCHLORINE PESTICIDES AND PCB'S (SUM000)		SEMI-VOLATILE ORGANICS (K025)		LEAD ANALYSIS (SUM421)
		(14 DAYS)	(14 DAYS)	(28 DAYS)	(14 DAYS) EXTRACTED	(40 DAYS) ANALYZED	(14 DAYS) EXTRACTED	(40 DAYS) ANALYZED	(100 DAYS)
FIRE TRAINING AREA - SITE 1									
VP1-01-S51-0.5	1-20-00	1-20-00(2)	2-1-00(8)	2-17-00(22)	1-20-00(2)	2-22-00(25)	2-1-00(6)	2-12-00(11)	5-10-00(105)
VP1-01-S52-3.5	1-20-00	2-3-00(8)	1-29-00(3)	2-17-00(22)	1-20-00(2)	2-22-00(25)	2-1-00(6)	2-12-00(11)	5-10-00(105)
VP1-01-S53-0.5	1-20-00	1-20-00(2)	2-1-00(8)	2-17-00(22)	1-20-00(2)	2-22-00(25)	2-1-00(6)	2-12-00(11)	5-10-00(105)
VP1-02-S51-0.5	1-20-00	2-9-00(14)	2-1-00(8)	2-17-00(22)	1-20-00(2)	2-22-00(25)	2-1-00(6)	2-9-00(8)	5-10-00(105)
VP1-02-S52-3.5	1-20-00	2-7-00(12)	2-9-00(14)	2-17-00(22)	1-20-00(2)	2-22-00(25)	2-1-00(6)	2-9-00(8)	5-10-00(105)
VP1-02-S53-0.5	1-20-00	2-7-00(12)	2-7-00(12)	2-17-00(22)	1-20-00(2)	2-22-00(25)	2-1-00(6)	2-9-00(8)	5-10-00(105)
VP1-03-S51-1.0	1-20-00	2-7-00(12)	2-9-00(14)	2-17-00(22)	1-20-00(2)	2-29-00(32)	2-1-00(6)	2-9-00(8)	5-11-00(106)
VP1-03-S51-1.0 (a)	1-20-00	1-20-00(2)	1-20-00(2)	2-17-00(22)	1-20-00(2)	2-22-00(25)	2-1-00(6)	2-6-00(7)	5-10-00(105)
VP1-03-S52-3.5	1-20-00	2-7-00(12)	2-9-00(14)	2-17-00(22)	1-20-00(2)	2-22-00(25)	2-1-00(6)	2-9-00(8)	5-11-00(106)
VP1-03-S53-0.5	1-20-00	1-20-00(2)	1-20-00(2)	2-17-00(22)	1-20-00(2)	2-29-00(32)	2-1-00(6)	2-6-00(7)	5-10-00(105)
VP1-04-S51-0.5	1-20-00	2-3-00(8)	2-1-00(8)	2-17-00(22)	1-20-00(2)	2-22-00(25)	2-1-00(6)	2-10-00(15)	5-12-00(107)
VP1-04-S51-0.5 (a)	1-20-00	1-20-00(2)	2-9-00(14)	2-17-00(22)	1-20-00(2)	2-22-00(25)	2-1-00(6)	2-10-00(15)	5-10-00(105)
VP1-04-S52-3.5	1-20-00	1-20-00(14)	2-9-00(14)	2-17-00(22)	1-20-00(2)	2-22-00(25)	2-1-00(6)	2-9-00(8)	5-11-00(106)
VP1-04-S53-0.5	1-20-00	2-5-00(10)	2-9-00(14)	2-17-00(22)	1-20-00(2)	2-22-00(25)	2-1-00(6)	2-12-00(11)	5-11-00(106)
VP1-05-S51-0	1-27-00	2-5-00(9)	2-10-00(14)	2-17-00(21)	1-29-00(2)	2-23-00(25)	2-2-00(6)	2-22-00(20)	5-11-00(105)
VP1-05-S52-3.5	1-27-00	2-5-00(9)	2-10-00(14)	2-17-00(21)	1-29-00(2)	2-23-00(25)	2-2-00(6)	2-23-00(21)	5-11-00(105)
VP1-05-S53-10	1-27-00	2-5-00(9)	2-10-00(14)	2-17-00(21)	1-29-00(2)	2-23-00(25)	2-2-00(6)	2-23-00(21)	5-11-00(105)
VP1-06-S51-0	1-27-00	2-5-00(9)	2-10-00(14)	2-17-00(21)	1-29-00(2)	2-23-00(25)	2-2-00(6)	2-23-00(21)	5-11-00(105)
VP1-06-S52-3.5	1-27-00	2-4-00(8)	2-10-00(14)	2-17-00(21)	1-29-00(2)	2-23-00(25)	2-2-00(6)	2-23-00(21)	5-11-00(105)
VP1-06-S53-0.5	1-27-00	2-4-00(8)	2-10-00(14)	2-17-00(21)	1-29-00(2)	2-23-00(25)	2-2-00(6)	2-22-00(20)	5-11-00(105)
VP1-07-S51-0	1-27-00	2-5-00(9)	2-9-00(13)	2-17-00(21)	1-29-00(2)	2-23-00(25)	2-2-00(6)	2-22-00(20)	5-11-00(105)
VP1-07-S52-3.5	1-27-00	2-5-00(9)	2-9-00(13)	2-17-00(21)	1-29-00(2)	2-23-00(25)	2-2-00(6)	2-22-00(20)	5-11-00(105)
VP1-07-S53-0.5	1-27-00	2-4-00(8)	2-9-00(13)	2-17-00(21)	1-29-00(2)	2-23-00(25)	2-2-00(6)	2-19-00(17)	5-11-00(105)
VP1-08-S51-0	1-20-00	2-11-00(14)	2-11-00(14)	2-17-00(20)	2-2-00(5)	2-23-00(21)	2-2-00(5)	3-1-00(27)	5-11-00(104)
VP1-08-S52-3.5	1-20-00	2-11-00(14)	2-11-00(14)	2-17-00(20)	2-2-00(5)	2-23-00(21)	2-2-00(5)	3-1-00(27)	5-11-00(104)
VP1-08-S53-0.5	1-20-00	2-11-00(14)	2-11-00(14)	2-17-00(20)	2-2-00(5)	2-23-00(21)	2-2-00(5)	3-1-00(27)	5-11-00(104)
VP1-09-S51-0	1-20-00	2-11-00(14)	2-11-00(14)	2-17-00(20)	2-2-00(5)	2-23-00(21)	2-2-00(5)	3-1-00(27)	5-11-00(104)
VP1-09-S51-0 (a)	1-20-00	2-11-00(14)	2-11-00(14)	2-17-00(20)	2-2-00(5)	2-23-00(21)	2-2-00(5)	3-1-00(27)	5-11-00(104)
VP1-09-S52-3.5	1-20-00	2-11-00(14)	2-11-00(14)	2-17-00(20)	2-2-00(5)	2-23-00(21)	2-2-00(5)	3-1-00(27)	5-11-00(104)
VP1-09-S53-0.5	1-20-00	2-10-00(13)	2-11-00(14)	2-17-00(20)	2-2-00(5)	2-23-00(21)	2-2-00(5)	3-1-00(27)	5-11-00(104)
VP1-10-S51-0.5	2-9-00	2-10-00(7)	2-17-00(8)	2-27-00(18)	2-16-00(7)	2-27-00(11)	2-17-00(8)	3-6-00(20)	5-11-00(93)
VP1-027-S51-0.5 (a)	2-9-00	2-17-00(8)	2-17-00(8)	2-27-00(18)	2-16-00(7)	2-27-00(11)	2-17-00(8)	3-6-00(20)	5-12-00(93)
VP1-10-S52-3.5	2-9-00	2-10-00(7)	2-17-00(8)	2-27-00(18)	2-16-00(7)	2-27-00(11)	2-17-00(8)	3-6-00(21)	5-11-00(93)
VP1-10-S53-0.5	2-9-00	2-19-00(10)	2-19-00(10)	2-27-00(18)	2-16-00(7)	2-27-00(11)	2-17-00(8)	3-6-00(21)	5-11-00(92)
VP1-11-S51-1.0	2-9-00	2-16-00(7)	2-16-00(7)	2-27-00(18)	2-16-00(7)	2-27-00(11)	2-17-00(8)	3-10-00(22)	5-11-00(92)
VP1-11-S52-3.5	2-9-00	2-17-00(8)	2-17-00(8)	2-27-00(18)	2-16-00(7)	2-27-00(11)	2-17-00(8)	3-10-00(22)	5-11-00(92)
VP1-11-S53-0.5	2-9-00	2-23-00(14)	2-19-00(10)	2-27-00(18)	2-16-00(7)	2-27-00(11)	2-17-00(8)	3-10-00(22)	5-11-00(92)
VP1-11-S51-1.0	2-9-00	2-17-00(8)	2-17-00(8)	2-27-00(18)	2-16-00(7)	2-27-00(11)	2-17-00(8)	3-10-00(22)	5-11-00(92)
VP1-11-S52-3.5	2-9-00	2-17-00(8)	2-17-00(8)	2-27-00(18)	2-16-00(7)	2-27-00(11)	2-17-00(8)	3-10-00(22)	5-11-00(92)
VP1-11-S53-0.5	2-9-00	2-17-00(8)	2-17-00(8)	2-27-00(18)	2-16-00(7)	2-27-00(11)	2-17-00(8)	3-10-00(22)	5-11-00(92)
VP1-11-S51-1.5	2-9-00	2-17-00(8)	2-17-00(8)	2-27-00(18)	2-16-00(7)	2-27-00(11)	2-17-00(8)	3-11-00(23)	5-11-00(92)
VP1-020-S51-1.5 (a)	2-9-00	2-17-00(8)	2-17-00(8)	2-27-00(18)	2-16-00(7)	2-27-00(11)	2-17-00(8)	3-11-00(23)	5-11-00(92)
VP1-11-S52-3.5	2-10-00	2-19-00(9)	2-19-00(9)	2-28-00(18)	2-23-00(13)	2-27-00(4)	2-21-00(11)	3-15-00(23)	5-11-00(91)
VP1-11-S53-0.5	2-10-00	2-19-00(9)	2-19-00(9)	2-28-00(18)	2-23-00(13)	2-27-00(4)	2-21-00(11)	3-15-00(23)	5-11-00(91)
VP1-11-S51-1.0	2-10-00	2-19-00(9)	2-19-00(9)	2-28-00(18)	2-23-00(13)	2-27-00(4)	2-21-00(11)	3-15-00(23)	5-11-00(91)
VP1-11-S52-3.5	2-10-00	2-19-00(9)	2-19-00(9)	2-28-00(18)	2-23-00(13)	2-27-00(4)	2-21-00(11)	3-15-00(23)	5-11-00(91)
VP1-11-S53-0.5	2-10-00	2-17-00(7)	2-17-00(7)	2-27-00(17)	2-23-00(13)	2-27-00(4)	2-21-00(11)	3-14-00(22)	5-11-00(91)
VP1-11-S51-0.5	2-10-00	2-17-00(7)	2-17-00(7)	2-27-00(17)	2-23-00(13)	2-27-00(4)	2-21-00(11)	3-15-00(23)	5-11-00(91)
VP1-11-S52-3.5	2-10-00	2-17-00(7)	2-17-00(7)	2-27-00(17)	2-23-00(13)	2-27-00(4)	2-21-00(11)	3-15-00(23)	5-11-00(91)
VP1-11-S53-0.5	2-10-00	2-10-00(8)	2-10-00(8)	2-28-00(18)	2-23-00(13)	2-27-00(4)	2-21-00(11)	3-15-00(23)	5-12-00(91)

(a) - This sample was a coded field duplicate of the sample listed above it in this table.

TABLE F.3
YOLK FIELD ARGB
SUMMARY OF CHEMICAL ANALYSES FOR
TRIP BLANKS, BAILER RINSE AND FIELD BLANKS

SAMPLE IDENTIFIER	DATE SAMPLED	PURGEABLE HALOCARBONS TG01(ug/L)	AROMATIC VOLATILE ORGANICS SW0020(ug/L)	PETROLEUM HYDROCARBONS E410.1(ug/L)	TOTAL DISSOLVED SOLIDS - E100.1 (ug/L)	PCB's SW0000/E600 (ug/L)	BASE/NEUTRALS ACID EXTRACTABLES E625(ug/L)	METALS - SW3010/200.7 SW3020/200.2, 239.2, 270.2, 7470 - (ug/L)	
		Results	Results	Results	Results	Results	Results	ELEMENT	Results
		TRIP BLANKS							
YF-11-N1-GW1-ES	03/02/00	ND	ND	NA	NA	NA	NA	---	NA
YF-11-N2-GW1-ES	03/03/00	ND	ND	NA	NA	NA	NA	---	NA
YF-11-N3-GW1-ES	03/04/00	ND	ND	NA	NA	NA	NA	---	NA
YF-11-N4-GW1-ES	03/07/00	ND	ND	NA	NA	NA	NA	---	NA
YF-11-N5-GW1-ES	03/08/00	ND	ND	NA	NA	NA	NA	---	NA
YF-11-N6-GW1-ES	03/09/00	ND	ND	NA	NA	NA	NA	---	NA
BAILER RINSE									
YF-12-N1-GW1-ES	03/03/00	ND	ND	ND	ND	ND	ND	Cu	0.018
								Pb	0.007
								Zn	0.03
YF-12-N2-GW1-ES	03/06/00	ND	ND	ND	ND	ND	ND	Zn	0.018
YF-12-N3-GW1-ES	03/08/00	ND	ND	ND	ND	ND	ND	Pb	ND
FIELD BLANKS									
YF-13-N1-GW1-ES	03/09/00	ND	ND	ND	ND	ND	ND	Cu	0.018
								Zn	0.018

ND - Not Detected

DL - Detection Limit

B - Reported value is less than Reporting limit but greater than the EDL.

NA - Not Applicable

TABLE F.4
SUMMARY OF RESULTS FOR CODED
FIELD DUPLICATES OF SOIL SAMPLES

IDENTIFIER NUMBER ONE (ACTUAL SAMPLE ID)	IDENTIFIER NUMBER TWO	UNITS	RESULT ONE	RESULT TWO	AVERAGE	RELATIVE PERCENT DIFFERENCE RPD
PURGEABLE HALOCARBONS (SW8010)						
VF1-B3-SS1-1.0	VF1-B21-SS1-1.0	ug/Lg	ND	ND	NC	NC
VF1-B4-SS1-0.5	VF1-B22-SS1-0.5	ug/Lg	TETRACHLOROETHYLENE 0.53	TETRACHLOROETHYLENE 0.73	0.63	31.8
			TRICHLOROETHYLENE 8.0	TRICHLOROETHYLENE 41	24.5	134.7
VF1-B9-SS1-0	VF1-B26-SS1-0	ug/Lg	ND	ND	NC	NC
VF1-B10-SS1-0.5	VF1-B27-SS1-0.5	ug/Lg	ND	ND	NC	NC
VF1-B13-SS1-1.5	VF1-B28-SS1-1.5	ug/Lg	ND	ND	NC	NC
AROMATIC VOLATILE ORGANICS (SW8020)						
VF1-B3-SS1-1.0	VF1-B21-SS1-1.0	ug/Lg	ND	ND	NC	NC
VF1-B4-SS1-0.5	VF1-B22-SS1-0.5	ug/Lg	BENZENE 2,000	BENZENE 170	1,085	168.7
			ETHYLBENZENE 4,800	ETHYLBENZENE 1,100	2,950	125.4
			TOLUENE 2,500	TOLUENE 1,000	1,750	85.7
			XYLENES 9,800	XYLENES 15,000	12,400	41.9
VF1-B9-SS1-0	VF1-B26-SS1-0	ug/Lg	ND	ND	NC	NC
VF1-B10-SS1-0.5	VF1-B27-SS1-0.5	ug/Lg	ND	ND	NC	NC
VF1-B13-SS1-1.5	VF1-B28-SS1-1.5	ug/Lg	ND	ND	NC	NC
PETROLEUM HYDROCARBONS (R418.1)						
VF1-B3-SS1-1.0	VF1-B21-SS1-1.0	ug/Lg	260	130	195	66.7
VF1-B4-SS1-0.5	VF1-B22-SS1-0.5	ug/Lg	11,000	11,000	11,000	0
VF1-B9-SS1-0	VF1-B26-SS1-0	ug/Lg	<100	<100	NC	NC
VF1-B10-SS1-0.5	VF1-B27-SS1-0.5	ug/Lg	570	750	660	27.3
VF1-B13-SS1-1.5	VF1-B28-SS1-1.5	ug/Lg	<100	<100	NC	NC
PCB'S (SW8080)						
VF1-B3-SS1-1.0	VF1-B21-SS1-1.0	ug/Lg	ND	ND	NC	NC
VF1-B4-SS1-0.5	VF1-B22-SS1-0.5	ug/Lg	ND	ND	NC	NC
VF1-B9-SS1-0	VF1-B26-SS1-0	ug/Lg	ND	ND	NC	NC
VF1-B10-SS1-0.5	VF1-B27-SS1-0.5	ug/Lg	ND	ND	NC	NC
VF1-B13-SS1-1.5	VF1-B28-SS1-1.5	ug/Lg	ND	ND	NC	NC
SEMI-VOLATILE ORGANICS (SW8270)						
VF1-B3-SS1-1.0	VF1-B21-SS1-1.0	ug/Lg	ND	ND	NC	NC
VF1-B4-SS1-0.5	VF1-B22-SS1-0.5	ug/Lg	ND	ND	NC	NC
VF1-B9-SS1-0	VF1-B26-SS1-0	ug/Lg	ND	ND	NC	NC
VF1-B10-SS1-0.5	VF1-B27-SS1-0.5	ug/Lg	ND	ND	NC	NC
VF1-B13-SS1-1.5	VF1-B28-SS1-1.5	ug/Lg	ND	ND	NC	NC
METALS - LEAD (R239.2)						
VF1-B3-SS1-1.0	VF1-B21-SS1-1.0	ug/Lg	1.7	1.6	1.65	6.1
VF1-B4-SS1-0.5	VF1-B22-SS1-0.5	ug/Lg	62.05	85.0	73.5	31.2
VF1-B9-SS1-0	VF1-B26-SS1-0	ug/Lg	2.3	2.3	2.3	0
VF1-B10-SS1-0.5	VF1-B27-SS1-0.5	ug/Lg	4.4	4.05	4.23	8.3
VF1-B13-SS1-1.5	VF1-B28-SS1-1.5	ug/Lg	0.8	2.4	1.6	100
% MOISTURE TOA (ASTM D2216-7)						
VF1-B3-SS1-1.0	VF1-B21-SS1-1.0	%	4	4	4	0
VF1-B4-SS1-0.5	VF1-B22-SS1-0.5	%	6	3	4.5	66.7
VF1-B9-SS1-0	VF1-B26-SS1-0	%	4	4	4	0
VF1-B10-SS1-0.5	VF1-B27-SS1-0.5	%	5	5	5	0
VF1-B13-SS1-1.5	VF1-B28-SS1-1.5	%	1	1	1	0

S - Reported value was determined by the method of Standard Additions
NC - Not Calculated
ND - Not Detected

TABLE F.5
SUMMARY OF RESULTS FOR CODED FIELD
DUPLICATE WATER SAMPLES

IDENTIFIER NUMBER ONE (ACTUAL SAMPLE ID)	IDENTIFIER NUMBER TWO	UNITS	RESULT ONE	RESULT TWO	AVERAGE	RELATIVE PERCENT DIFFERENCE (RPD)
PERCEALABLE HALOCARBONS (SM0010/E601)						
VF-1-M1-GW1-RS	VF-1-M5-GW1-RS	ug/l	ND	ND	NC	NC
AROMATIC VOLATILE ORGANICS (SM0020/E602)						
VF-1-M1-GW1-RS	VF-1-M5-GW1-RS	ug/l	BENZENE 4.9 TOLUENE 0.44 XYLENES 4	BENZENE 4.5 ND XYLENES 4.7	4.70 NC 4.35	0.5 NC 16.1
PETROLEUM HYDROCARBONS (K110.1)						
VF-1-M1-GW1-RS	VF-1-M5-GW1-RS	ug/l	<1	<1	<1	NC
TOTAL DISSOLVED SOLIDS (K160.1)						
VF-1-M1-GW1-RS	VF-1-M5-GW1-RS	ug/l	129	164	146.5	23.9
PCB'S (SM0000/E600)						
VF-1-M1-GW1-RS	VF-1-M5-GW1-RS	ug/l	ND	ND	NC	NC
SEMI VOLATILE ORGANICS (K625)						
VF-1-M1-GW1-RS	VF-1-M5-GW1-RS	ug/l	NAPHTHALENE 2.3 BIS(2-ETHYLHEXYL)- PHTHALATE 9.0	ND ND	NC NC	NC NC
METALS:						
LEAD (K239.2)						
VF-1-M1-GW1-RS	VF-1-M5-GW1-RS	ug/l	0.010	0.020	0.015	66.7
BENTILLION (K200.7)						
VF-1-M1-GW1-RS	VF-1-M5-GW1-RS	ug/l	NA	NA	NC	NC
CHROMIUM (K200.7)						
VF-1-M1-GW1-RS	VF-1-M5-GW1-RS	ug/l	NA	NA	NC	NC
COPPER (K200.7)						
VF-1-M1-GW1-RS	VF-1-M5-GW1-RS	ug/l	NA	NA	NC	NC
ZINC (K200.7)						
VF-1-M1-GW1-RS	VF-1-M5-GW1-RS	ug/l	NA	NA	NC	NC

NA - Not Analyzed
NC - Not Calculated
ND - Not Detected

ATTACHMENT - LABORATORY QC DATA

Engineering-Science
Berkeley Laboratory

QUALITY CONTROL RESULTS SUMMARY
Environmental Quality Parameters

Page 1 of 1

ES Job No.: AT077
Client: ES Atlanta/Volk Field AFB
Attn.: Dan Lane
Address: 57 Executive Park South,
N.E., Suite 590
Atlanta, GA 30329

QC Report No.: TPH-W-0020-88
Date Reported: 5/05/88
Laboratory Supervisor Approval:

[Signature]

Sample Matrix:
Water (mg/L)

Dilution Factor: NA
QC Report for Sample Nos.:
88030558-0562, 88030566-0567,
88030572-0573

F-10

Analytical Parameter	Laboratory Duplicates	Sample Nos. Spike	Date Anal	Blank Anal Method	Duplicate C1 C2	RPD	SA	SSR	Recovery Notes
Petroleum									
Hydrocarbons	88030566	88030567	3/19/88	418.1	<1	<1	10	<1	7.1 71 *

* Percent recovery is within the ES laboratory control limits.

NA - Not applicable
NC - Not calculated

$$\text{Relative Percent Difference (RPD)} = \frac{C1 - C2}{(C1 + C2)/2} \times 100$$

C1 = Concentration One
C2 = Concentration Two

$$\text{Percent Recovery (PR)} = \frac{SSR - SR}{SA} \times 100$$

SSR = Spiked Sample Result
SR = Sample Result
SA = Spike Added (Concentration)

Engineering-Science
Berkeley Laboratory

QUALITY CONTROL RESULTS SUMMARY
Environmental Quality Parameters

Page 1 of 1

ES Job No.: AT077
Client: ES Atlanta/Volk Field AFB
Attn.: Dan Lane
Address: 57 Executive Park South,
N.E., Suite 590
Atlanta, GA 30329

QC Report No.: TPH-W-0021-88
Date Reported: 5/05/88
Laboratory Supervisor Approval:

[Signature]

Sample Matrix:
Water (mg/L)

Dilution Factor: NA
QC Report for Sample Nos.:
88030539-0541, 88030551-0557

Analytical Parameter	Laboratory Duplicates	Sample Nos. Spike	Date Anal	Anal Method	Blank	Duplicate		Spike Recovery		Notes
						C1	C2	RPD	SA	
Petroleum										
Hydrocarbons	88030554	88030555	3/18/88	418.1	<1	1.6	1.6	0	10	<1 7.2 72 *

* Percent recovery is within the ES laboratory control limits.

NA = Not applicable
NC = Not calculated

$$\text{Relative Percent Difference (RPD)} = \frac{C1 - C2}{(C1 + C2)/2} \times 100$$

C1 = Concentration One
C2 = Concentration Two

$$\text{Percent Recovery (PR)} = \frac{\text{SSR} - \text{SR}}{\text{SA}} \times 100$$

SSR = Spiked Sample Result
SR = Sample Result
SA = Spike Added (Concentration)

Engineering-Science
Berkeley Laboratory

QUALITY CONTROL RESULTS SUMMARY
Environmental Quality Parameters

Page 1 of 1

ES Job No.: AT077
Client: ES Atlanta/Volk Field AFB
Attn.: Dan Lane
Address: 57 Executive Park South,
N.E., Suite 590
Atlanta, GA 30329

QC Report No.: TPH-W-0024-88
Date Reported: 5/05/88
Laboratory Supervisor Approval:

AM Burton

Sample Matrix:
Water (mg/L)

Dilution Factor: NA
QC Report for Sample Nos.:
88030558-0562, 88030565-0567,
88030572-0573

F-12

Analytical Parameter	Laboratory Duplicates	Sample Nos. Spike	Date Anal	Anal Method	Blank	Duplicate		Spike Recovery		Notes
						C1	C2	SA	SR	
Petroleum										
Hydrocarbons	88030566	88030567	3/19/88	418.1	<1	<1	<1	10	<1	7.1 71 *

* Percent recovery is within the ES laboratory control limits.

NA - Not applicable
NC - Not calculated

$$\text{Relative Percent Difference (RPD)} = \frac{C1 - C2}{(C1 + C2)/2} \times 100$$

C1 = Concentration One
C2 = Concentration Two

$$\text{Percent Recovery (PR)} = \frac{SSR - SR}{SA} \times 100$$

SSR = Spiked Sample Result
SR = Sample Result
SA = Spike Added (Concentration)

Engineering-Science
Berkeley Laboratory

QUALITY CONTROL RESULTS SUMMARY
Environmental Quality Parameters

Page 1 of 1

ES Job No.: AT077
Client: ES Atlanta/Volk Field AFB
Attn.: Dan Lane
Address: 57 Executive Park South,
N.E., Suite 590
Atlanta, GA 30329

QC Report No.: TPH-W-0025-88
Date Reported: 5/05/88
Laboratory Supervisor Approval:

[Signature]

Sample Matrix:
Water (mg/L)

Dilution Factor: NA
QC Report for Sample Nos.:
88030568-0569, 88030574-0576

Analytical Parameter	Laboratory Duplicates	Sample Nos. Spike	Date Anal	Blank	Anal Method	Duplicate		Spike Recovery		Notes			
						C1	C2	RPD	SA		SR	SSR	PR
Petroleum													
Hydrocarbons	88030568	88030569	3/19/88	418.1	<1	<1	<1	NC	10	26	32	60	*

* Percent recovery is within the ES laboratory control limits.

NA = Not applicable
NC = Not calculated

$$\text{Relative Percent Difference (RPD)} = \frac{C1 - C2}{(C1 + C2)/2} \times 100$$

C1 = Concentration One
C2 = Concentration Two

$$\text{Percent Recovery (PR)} = \frac{\text{SSR} - \text{SR}}{\text{SA}} \times 100$$

SSR = Spiked Sample Result
SR = Sample Result
SA = Spike Added (Concentration)

Engineering-Science
Berkeley Laboratory

QUALITY CONTROL RESULTS SUMMARY
Environmental Quality Parameters

ES Job No.: AT077
Client: ES Atlanta/Volk Field AFB
Attn.: Jimmy Duncan
Address: 57 Executive Park Suite 590
Atlanta, GA 30329

QC Report No.: TPH-S-0013-88
Date Reported: 4-04-88
Laboratory Supervisor Approval:

[Signature]

Sample Matrix:
Soil (mg/Kg)

*Moisture: NA

QC Report for Sample No.: 88010186-0195

Analytical Parameter	Laboratory Duplicates	Sample Nos. Spike	Date Anal	Blank Method	C1	Duplicate C2	RPD	SA	Spike Recovery SSR	Notes PR
Petroleum										
Hydrocarbons	88010186	88010186	2-17-88	418.1	<100	<100	NC	1000	<100	830 83

* If % moisture is reported, results are presented on a dry-weight basis.

NA = Not applicable NC = Not calculated

$$\text{Relative Percent Difference (RPD)} = \frac{C1 - C2}{(C1 + C2)/2} \times 100 \quad C1 = \text{Concentration One} \quad C2 = \text{Concentration Two}$$

$$\text{Percent Recovery (PR)} = \frac{SSR - SR}{SA} \times 100 \quad SSR = \text{Spiked Sample Result} \quad SR = \text{Sample Result} \quad SA = \text{Spike Added (Concentration)}$$

Engineering-Science
Berkeley Laboratory

QUALITY CONTROL RESULTS SUMMARY
Environmental Quality Parameters

ES Job No.: AT077
Client: ES Atlanta/Volk Field AFB
Attn.: Jimmy Duncan
Address: 57 Executive Park Suite 590
Atlanta, GA 30329

QC Report No.: TPH-S-0014-88
Date Reported: 4-04-88
Laboratory Supervisor Approval:

[Signature]

Sample Matrix:
Soil (mg/Kg)

*Moisture: NA

QC Report for Sample No.: 88010196-0199, 88010204-0209

Analytical Parameter	Laboratory Duplicates	Sample Nos.	Date Anal	Anal Method	Blank	Duplicate		Spike Recovery		Notes		
						C1	C2	RPD	SA		SR	SSR
Petroleum												
Hydrocarbons	88010204	88010204	2-17-88	418.1	<100	<100	<100	NC	1000	<100	860	86

* If % moisture is reported, results are presented on a dry-weight basis.
NA = Not applicable NC = Not calculated

$$\text{Relative Percent Difference (RPD)} = \frac{C1 - C2}{(C1 + C2)/2} \times 100 \quad \begin{matrix} C1 = \text{Concentration One} \\ C2 = \text{Concentration Two} \end{matrix}$$

$$\text{Percent Recovery (PR)} = \frac{SSR - SR}{SA} \times 100 \quad \begin{matrix} SSR = \text{Spiked Sample Result} \\ SR = \text{Sample Result} \\ SA = \text{Spike Added (Concentration)} \end{matrix}$$

Engineering-Science
Berkeley Laboratory

QUALITY CONTROL RESULTS SUMMARY
Environmental Quality Parameters

ES Job No.: AT077
Client: ES Atlanta/Volk Field AFB
Attn.: Jimmy Duncan
Address: 57 Executive Park Suite 590
Atlanta, GA 30329

QC Report No.: TPH-S-0015-88
Date Reported: 4-04-88
Laboratory Supervisor Approval:

[Signature]

Sample Matrix:
Soil (mg/Kg)

*Moisture: NA

QC Report for Sample No.: 88010210-0212, 88010214-0220

Analytical Parameter	Laboratory Duplicates	Sample Nos. Spike	Date Anal	Anal Method	Blank	Duplicate		Spike Recovery		Notes
						C1	C2	SA	SR	
Petroleum										
Hydrocarbons	88010220	88010220	2-17-88	418.1	<100	<100	<100	1000	<100	1000 100

* If % moisture is reported, results are presented on a dry-weight basis.

NA = Not applicable NC = Not calculated

$$\text{Relative Percent Difference (RPD)} = \frac{C1 - C2}{(C1 + C2)/2} \times 100 \quad \begin{array}{l} C1 = \text{Concentration One} \\ C2 = \text{Concentration Two} \end{array}$$

$$\text{Percent Recovery (PR)} = \frac{SSR - SR}{SA} \times 100 \quad \begin{array}{l} SSR = \text{Spiked Sample Result} \\ SR = \text{Sample Result} \\ SA = \text{Spike Added (Concentration)} \end{array}$$

Engineering-Science
Berkeley Laboratory

QUALITY CONTROL RESULTS SUMMARY
Environmental Quality Parameters

Page 1 of 1

ES Job No.: AT077
Client: ES Atlanta/Volk Field AFB
Attn.: Dan Lane
Address: 57 Executive Park South,
N.E., Suite 590
Atlanta, GA 30329

QC Report No.: TPH-S-0016-88
Date Reported: 5/05/88
Laboratory Supervisor Approval:

[Signature]

Sample Matrix:
Soil (mg/Kg)

*Moisture: NA
QC Report for Sample Nos.:
88020289-0298

Analytical Parameter	Laboratory Duplicates	Sample Nos. Spike	Date Anal	Anal Method	Blank	Duplicate		Spike Recovery		Notes		
						C1	C2	RPD	SA		SR	SSR
Petroleum												
Hydrocarbons	88020289	88020289	2/27/88	418.1	<100	<100	<100	NC	1000	<100	920	92

* If % moisture is reported, results are presented on a dry-weight basis.
NA = Not applicable
NC = Not calculated

$$\text{Relative Percent Difference (RPD)} = \frac{C1 - C2}{(C1 + C2)/2} \times 100$$

C1 = Concentration One
C2 = Concentration Two

$$\text{Percent Recovery (PR)} = \frac{SSR - SR}{SA} \times 100$$

SSR = Spiked Sample Result
SR = Sample Result
SA = Spike Added (Concentration)

Engineering-Science
Berkeley Laboratory

QUALITY CONTROL RESULTS SUMMARY
Environmental Quality Parameters

Page 1 of 1

ES Job No.: AT077
Client: ES Atlanta/Volk Field AFB
Attn.: Dan Lane
Address: 57 Executive Park South,
N.E., Suite 590
Atlanta, GA 30329

QC Report No.: TPH-S-0017-88
Date Reported: 5/05/88
Laboratory Supervisor Approval:

AWB

Sample Matrix:
Soil (mg/Kg)

*Moisture: NA
QC Report for Sample Nos.:
88020299-0300, 88020371-0378

F-18

Analytical Parameter	Laboratory Duplicates	Sample Nos. Spike	Date Anal	Anal Method	Blank	Duplicate		Spike Recovery		Notes
						C1	C2	RPD	SA	
Petroleum										
Hydrocarbons	88020299	88020299	2/27/88	418.1	<100	<100	<100	NC	1000	<100 810 81

* If % moisture is reported, results are presented on a dry-weight basis.

NA = Not applicable

NC = Not calculated

$$\text{Relative Percent Difference (RPD)} = \frac{C1 - C2}{(C1 + C2)/2} \times 100 \quad \begin{array}{l} C1 = \text{Concentration One} \\ C2 = \text{Concentration Two} \end{array}$$

$$\text{Percent Recovery (PR)} = \frac{SSR - SR}{SA} \times 100 \quad \begin{array}{l} SSR = \text{Spiked Sample Result} \\ SR = \text{Sample Result} \\ SA = \text{Spike Added (Concentration)} \end{array}$$

181.3.1

QC Report No.: VGC-W-0019-88
Date Reported: 5/12/88
Date Analyzed: 3/14/88
Laboratory Supervisor Approval:

2103-15

88030522
88030522

QC Report for Samples: 88030522-0523, 88030527-0533, 88030536

Compound	Blank	Duplicates			Spike Recovery				ES QC Limits*	
		C1	C2	RPD	SA	SR	SSR	PR	RPD	%Recovery
Halocarbons: 601/8010										
1,1-dichloroethane	ND	9.4	8.4	11	10	ND	9.4	94	56	44-156
Trichloroethene	ND	10.6	10.9	3	10	ND	10.6	106	38	62-138
Chlorobenzene	ND	10.8	9.4	14	10	ND	10.8	108	44	56-144
Aromatics: 602/8020										
Benzene	ND	10.0	8.7	14	10	ND	10.0	100	45	55-145
Toluene	ND	11.8	10.0	17	10	ND	11.8	118	41	58-142
Chlorobenzene	ND	13.3	11.5	15	10	ND	13.3	133	34	67-133

ND = Not detectable at instrumental detection limits. Aqueous standards were used to determine detection limits.

$$\text{Relative Percent Difference (RPD)} = \frac{C1 - C2}{(C1 + C2)/2} \times 100$$

C1 = Spike Sample
C2 = Duplicate Spike Sample

$$\text{Percent Recovery (PR)} = \frac{\text{SSR} - \text{SR}}{\text{SA}} \times 100$$

SSR = Spiked Sample Result
SR = Sample Result
SA = Spike Added (Concentration)

QC Report No.: VGC-W-0020-88
Date Reported: 5/12/88
Date Analyzed: 3/17/88
Laboratory Supervisor Approval:

RWBurton

Aromatics 602/8020

88030540
88030540

QC Report for Samples: 88030537-0542, 88030551-0554

Compound	Blank	Duplicates			Spike Recovery				ES RPD	QC Limits* %Recovery
		C1	C2	RPD	SA	SR	SSR	PR		
Halocarbons: 601/8010										
1,1-dichloroethane	ND	9.8	10.4	6	10	ND	9.8	98	56	44-156
Trichloroethane	ND	9.9	10.8	9	10	ND	9.9	99	38	62-138
Chlorobenzene	ND	10.5	11.0	5	10	ND	10.5	105	44	56-144
Aromatics: 602/8020										
Benzene	ND	14.8	14.7	1	10	4.9	14.8	99	45	55-145
Toluene	ND	11.1	10.5	6	10	0.50	11.1	106	41	58-142
Chlorobenzene	ND	12.6	13.6	8	10	ND	12.6	126	34	67-133

ND = Not detectable at instrumental detection limits. Aqueous standards were used to determine detection limits.

Relative Percent Difference (RPD) = $\frac{C1 - C2}{(C1 + C2)/2} \times 100$ C1 = Spike Sample
C2 = Duplicate Spike Sample

$$\text{Percent Recovery (PR)} = \frac{\text{SSR} - \text{SR}}{\text{SA}} \times 100$$

SSR = Spiked Sample Result
SR = Sample Result
SA = Spike Added (Concentration)

QC Report No.: VGC-W-0021-88
Date Reported: 5/12/88
Date Analyzed: 3/21/88
Laboratory Supervisor Approval:


QC Report for Samples: 88030555-0563, 88030565

SR = Sample Result
SA = Spike Added (Concentration)

Engineering-Science QUALITY CONTROL RESULTS SUMMARY Page 1 of 1
 Volatile Organics
 EPA 601/602/8010/8020

ES Job No.: AT077
 Client : ES Atlanta/Volk AFB
 Attn : Dan Lane
 Address : 57 Executive Park South,
 N.E., Suite 590
 Atlanta, GA 30329

QC Report No.: VGC-W-0022-88
 Date Reported: 5/12/88
 Date Analyzed: 3/21/88
 Laboratory Supervisor Approval:



Lab Sample Nos.:

	<u>Halocarbons 601/8010</u>	<u>Aromatics 602/8020</u>
Spike Duplicate	88030566	88030566
Spike	88030566	88030566

Sample Matrix:
 Soil (ug/Kg)

QC Report for Samples: 88030566-0568, 88030570, 88030574, 88030576-0577

Compound	Blank	Duplicates			Spike Recovery				ES QC Limits*	
		C1	C2	RPD	SA	SR	SSR	PR	RPD	%Recovery
Halocarbons: 601/8010										
1,1-dichloroethane	ND	10.6	10.9	3	10	ND	10.6	106	56	44-156
Trichloroethene	ND	11.2	10.2	9	10	ND	11.2	112	38	62-138
Chlorobenzene	ND	10.4	11.4	9	10	ND	10.4	104	44	56-144
Aromatics: 602/8020										
Benzene	ND	10.0	11.0	10	10	1.2	10.0	88	45	55-145
Toluene	ND	14.8	16.3	10	10	6.0	14.8	88	41	58-142
Chlorobenzene	ND	10.6	11.3	6	10	ND	10.6	106	34	67-133

* Asterisked values are outside of ES QC limits.

ND = Not detectable at instrumental detection limits. Aqueous standards were used to determine detection limits.

$$\text{Relative Percent Difference (RPD)} = \frac{C1 - C2}{(C1 + C2)/2} \times 100 \quad \begin{array}{l} C1 = \text{Spike Sample} \\ C2 = \text{Duplicate Spike Sample} \end{array}$$

$$\text{Percent Recovery (PR)} = \frac{SSR - SR}{SA} \times 100 \quad \begin{array}{l} SSR = \text{Spiked Sample Result} \\ SR = \text{Sample Result} \\ SA = \text{Spike Added (Concentration)} \end{array}$$

VOLATILE ORGANICS
EPA 601/602/8010/8020

Lab Sample No.: VGC-W-0024-88
Date Reported: 5-23-88
Date Analyzed: 3-23-88
Laboratory Supervisor Approval:

RWBuxton

Aromatics 602/8020
88030573
88030573

Dilution: 25

Compound	Blank	Duplicates		Spike Recovery		ES QC RPD	Limits %Recovery
		C1	C2	RPD	SA		

1,1-dichloroethane	ND	NA	NA	NA	NA	ND	NA	NA	56	44-156
Trichloroethene	ND	NA	NA	NA	NA	ND	NA	NA	38	62-138
Chlorobenzene	ND	NA	NA	NA	NA	ND	NA	NA	44	56-144

Benzene	ND	404	384	5	250	29	404	150*	45	55-145
Toluene	ND	296	285	4	250	40	296	102	41	58-142
Chlorobenzene	ND	198	118	51*	250	ND	198	79	34	67-133

* Asterisked values are outside of ES QC limits. Xylenes interferences encountered in the aromatics determination.

C1 = Spike Sample
C2 = Spike Duplicate

88-A1-VOLK0032 1

Engineering-Science **QUALITY CONTROL RESULTS SUMMARY**
Volatile Organics
EPA 601/602/8010/8020

ES Job No.: AT064
Client : ES Atlanta/Volk AFB
Attn : Jimmy Duncan
Address : 57 Executive Park South,
N.E., Suite 590
Atlanta, GA 30329

QC Report No.: VGC-S-0003-88
Date Reported: 4-06-88
Date Analyzed: 2-18-88
Laboratory Supervisor Approval:

RWB

	<u>Halocarbons 601/8010</u>	<u>Aromatics 602/8020</u>
Spike Duplicate	88020299	88020299
Spike	88020299	88020299

Sample Matrix:
Soil (ug/Kg)

QC Report for Samples: 88020299-0300, 88020371-0378

Compound	Blank	Duplicates			Spike Recovery				ES QC Limits	
		C1	C2	RPD	SA	SR	SSR	PR	RPD	%Recovery
Halocarbons: 601/8010										
1,1-dichloroethane	ND	9.4	10.0	6	10	ND	9.4	94	56	44-156
Trichloroethene	ND	9.3	9.3	0	10	ND	9.3	93	38	62-138
Chlorobenzene	ND	9.6	10.1	5	10	ND	9.6	96	44	56-144
Aromatics: 602/8020										
Benzene	ND	9.9	9.6	3	10	ND	9.9	99	45	55-145
Toluene	ND	10.0	9.6	4	10	ND	10.0	100	41	58-142
Chlorobenzene	ND	9.9	9.3	6	10	ND	9.9	99	34	67-133

ND = Not detectable at instrumental detection limits. Aqueous standards were used to determine detection limit

* Asterisked values are outside of ES QC limits.

Relative Percent Difference (RPD) = $\frac{C1 - C2}{(C1 + C2)/2} \times 100$ C1 = Spike Sample
C2 = Spike Duplicate

Percent Recovery (PR) = $\frac{SSR - SR}{SA} \times 100$

SSR = Spiked Sample Result
SR = Sample Result
SA = Spike Added (Concentration)

176.41.1

Engineering-Science

QUALITY CONTROL RESULTS SUMMARY
Volatile Organics
EPA 601/602/8010/8020

ES Job No.: AT064
Client : ES Atlanta/Volk AFB
Attn : Jimmy Duncan
Address : 57 Executive Park South,
N.E., Suite 590
Atlanta, GA 30329

QC Report No.: VGC-S-0007-88
Date Reported: 4-06-88
Date Analyzed: 2-08-88
Laboratory Supervisor Approval:

Alvin Buntz

	<u>Halocarbons 601/8010</u>
Spike Duplicate	88010194
Spike	88010194

Aromatics 602/8020
88010194
88010194

Sample Matrix:
Soil (ug/Kg)

QC Report for Samples: 88010194, 88010197-0209

Compound	Blank	Duplicates			Spike Recovery				ES RPD	QC Limits %Recovery
		C1	C2	RPD	SA	SR	SSR	PR		
Halocarbons: 601/8010										
1,1-dichloroethane	ND	8.1	8.5	5	10	ND	8.1	81	56	44-156
Trichloroethene	ND	8.9	9.0	1	10	ND	8.9	89	38	62-138
Chlorobenzene	ND	10.3	10.5	2	10	ND	10.3	103	44	56-144
Aromatics: 602/8020										
Benzene	ND	9.6	9.9	3	10	ND	9.6	96	45	55-145
Toluene	ND	8.5	8.5	0	10	ND	8.5	85	41	58-142
Chlorobenzene	ND	8.7	9.8	12	10	ND	8.7	87	34	67-133

ND = Not detectable at instrumental detection limits. Aqueous standards were used to determine detection limit

* Asterisked values are outside of ES QC limits.

$$\text{Relative Percent Difference (RPD)} = \frac{C1 - C2}{(C1 + C2)/2} \times 100$$

C1 = Spike Sample

C2 = Duplicate Spike Sample

$$\text{Percent Recovery (PR)} = \frac{\text{SSR} - \text{SR}}{\text{SA}} \times 100$$

SSR = Spiked Sample Result

SR = Sample Result

SA = Spike Added (Concentration)

QC Report No.: VGC-S-0008-88
Date Reported: 5/12/88
Date Analyzed: 2/10/88
Laboratory Supervisor Approval:

Rev Burt

Aromatics 602/8020

88010210

88010210

Soil (ug/Kg)

OC Report for Samples: 88010210-0212, 8801214-0220

Compound	Blank	Duplicates			Spike Recovery				ES	QC Limits*
		C1	C2	RPD	SA	SR	SSR	PR	RPD	%Recovery
Halocarbons: 601/8010										
1,1-dichloroethane	ND	9.6	10.1	5	10	ND	9.6	96	56	44-156
Trichloroethene	ND	9.5	9.9	4	10	ND	9.5	95	38	62-138
Chlorobenzene	ND	9.0	10.3	13	10	ND	9.0	90	44	56-144
Aromatics: 602/8020										
Benzene	ND	10.2	9.4	8	10	ND	10.2	102	45	55-145
Toluene	ND	10.0	9.9	1	10	ND	10.0	100	41	58-142
Chlorobenzene	ND	9.6	9.6	0	10	ND	9.6	96	34	67-133

ND = Not detectable at instrumental detection limits. Aqueous standards were used to determine detection limits.

Relative Percent Difference (RPD) = $\frac{C1 - C2}{(C1 + C2)/2} \times 100$ C1 = Spike Sample
C2 = Duplicate Spike Sample

Percent Recovery (PR) = $\frac{SSR - SR}{SA} \times 100$

SSR = Spiked Sample Result
SR = Sample Result
SA = Spike Added (Concentration)

Engineering-Science QUALITY CONTROL RESULTS SUMMARY
 Volatile Organics
 EPA 601/602/8010/8020

ES Job No.: AT064
Client : ES Atlanta/Volk AFB
Attn : Jimmy Duncan
Address : 57 Executive Park South,
N.E., Suite 590
Atlanta, GA 30329

QC Report No.: VGC-S-0009-88
Date Reported: 4-06-88
Date Analyzed: 2-18-88
Laboratory Supervisor Approval:

AWB

	<u>Halocarbons 601/8010</u>
Spike Duplicate	88020289
Spike	88020289

Aromatics 602/8020
88020289
88020289

Sample Matrix:
Soil (ug/Kg)

QC Report for Samples: 88020289-0298

Compound	Blank	Duplicates			Spike Recovery				ES	QC	Limits
		C1	C2	RPD	SA	SR	SSR	PR	RPD	% Recovery	
Halocarbons: 601/8010											
1,1-dichloroethane	ND	10.3	8.6	18	10	ND	10.3	103	56		44-156
Trichloroethene	ND	9.5	8.8	8	10	ND	9.5	95	38		62-138
Chlorobenzene	ND	9.6	9.7	1	10	ND	9.6	96	44		56-144
Aromatics: 602/8020											
Benzene	ND	11.6	9.5	20	10	ND	11.6	116	45		55-145
Toluene	ND	10.3	9.8	5	10	ND	10.3	103	41		58-142
Chlorobenzene	ND	10.3	9.4	9	10	ND	10.3	103	34		67-133

ND = Not detectable at instrumental detection limits. Aqueous standards were used to determine detection limit

* Asterisked values are outside of ES OC limits.

$$\text{Relative Percent Difference (RPD)} = \frac{C1 - C2}{(C1 + C2)/2} \times 100$$

C1 = Spike Sample
C2 = Spike Duplicate

Percent Recovery (PR) = $\frac{SSR - SR}{SA} \times 100$

SSR = Spiked Sample Result
 SR = Sample Result
 SA = Spike Added (Concentration)

176.41.3

Engineering-Science **QUALITY CONTROL RESULTS SUMMARY** Page 1 of 1
Volatile Organics
EPA 601/602/8010/8020

ES Job No.: AT077
Client : ES Atlanta/Volk AFB
Attn : Dan Lane
Address : 57 Executive Park South,
N.E., Suite 590
Atlanta, GA 30329

QC Report No.: VGC-S-0010-88
Date Reported: 5/11/88
Date Analyzed: 2/18/88
Laboratory Supervisor Approval:



Lab Sample Nos.:

Halocarbons 601/8010
Spike Duplicates 88020299
Spike 88020299

Aromatics 602/8020
88020299
88020299

Sample Matrix:
Soil (ug/Kg)

QC Report for Sample: 88020299-0300, 88020371-0378

Compound	Blank	Duplicates			Spike Recovery				ES QC Limits*	
		C1	C2	RPD	SA	SR	SSR	PR	RPD	%Recovery
Halocarbons: 601/8010										
1,1-dichloroethane	ND	9.4	10.0	6	10	ND	9.4	94	56	44-156
Trichloroethene	ND	9.3	9.3	0	10	ND	9.3	93	38	62-138
Chlorobenzene	ND	9.6	10.1	5	10	ND	9.6	96	44	56-144
Aromatics: 602/8020										
Benzene	ND	9.9	9.6	3	10	ND	9.9	99	45	55-145
Toluene	ND	10.0	9.6	4	10	ND	10.0	100	41	58-142
Chlorobenzene	ND	9.9	9.3	6	10	ND	9.9	99	34	67-133

* Asterisked values are outside of ES QC limits.

ND = Not detectable at instrumental detection limits. Aqueous standards were used to determine detection limits.

$$\text{Relative Percent Difference (RPD)} = \frac{C1 - C2}{(C1 + C2)/2} \times 100 \quad \begin{array}{l} C1 = \text{Spike Sample} \\ C2 = \text{Duplicate Spike Sample} \end{array}$$

$$\text{Percent Recovery (PR)} = \frac{SSR - SR}{SA} \times 100$$

SSR = Spiked Sample Result

SR = Sample Result

SA = Spike Added (Concentration)

SURROGATE PERCENT RECOVERY
SOIL
DATE REPORTED: 9-26-88

Job No.: AT077

Client: ES Atlanta
Attention: Jimmy Duncan
Address: 57 Executive Park South
N. E. - Suite 590
Atlanta, Ga. 30329

Laboratory Supervisor Approval:

RWBryxton

Project: Volk Field AFB

Sample Nos.	1-chloro-2-bromopropane (14-158)	a-a-a-trifluorotoluene (7-187)
88010186	113	82
88010187	80	100
88010188	103	113
88010189	109	96
88010190	74	105
88010191	96	101
88010192	104	112
88010193	96	105
88010194	90	102
88010195	92	79
88010196	101	123
88010197	104	110
88010198	94	77
88010199	90	119
88010204	82	100
88010205	101	104
88010206	99	98
88010207	88	95
88010208	102	90
88010209	97	108
88010210	91	116
88010211	96	95
88010212	85	82
88010214	83	89
88010215	122	106
88010216	106	103
88010217	99	111
88010218	101	114
88010219	113	108
88010220	107	128

* Asterisked values are outside of ES Laboratory limits.
EPA has not established percent recovery limits for these compounds.

SURROGATE PERCENT RECOVERY
SOIL
DATE REPORTED: 9-29-88

Job No.: AT077

Client: ES Atlanta
Attention: Dan Lane
Address: 57 Executive Park South
N. E. - Suite 590
Atlanta, Ga. 30329

Laboratory Supervisor Approval:

RM Bunter

Project: Volk Field AFB

Sample Nos.	1-chloro-2-bromopropane (14-158)	a-a-a-trifluorotoluene (7-187)
88010186 MS	100	187
88010186 MSD	103	149
88010194 MS	97	49
88010194 MSD	104	197*
88010210 MS	98	61
88010210 MSD	106	70
88020289 MS	98	102
88020289 MSD	97	95
88020299 MS	101	100
88020299 MSD	100	94
88020383 MS	93	91
88020383 MSD	96	90

* Asterisked values are outside of ES Laboratory limits.
EPA has not established percent recovery limits for these compounds.

SURROGATE PERCENT RECOVERY

SOIL

DATE REPORTED: 9-26-88

Job No.: AT077

Client: ES Atlanta
Attention: Jimmy Duncan
Address: 57 Executive Park South
 N. E. - Suite 590
 Atlanta, Ga. 30329

Laboratory Supervisor Approval:



Project: Volk Field AFB

Sample Nos.	1-chloro-2-bromopropane (14-158)	a-a-a-trifluorotoluene (7-187)
88020289	99	81
88020290	97	97
88020291	109	100
88020292	98	93
88020293	114	104
88020294	112	106
88020295	93	94
88020296	108	102
88020297	102	90
88020298	95	97
88020299	95	83
88020300	95	101
88020371	93	100
88020372	89	100
88020373	96	101
88020374	110	120
88020375	98	102
88020376	108	93
88020377	108	89
88020378	87	88
88020383	102	90
88020384	105	93
88020385	112	98

* Asterisked values are outside of ES Laboratory limits.
 EPA has not established percent recovery limits for these compounds.

SURROGATE PERCENT RECOVERY
WATER
DATE REPORTED: 9-29-88

Job No.: AT077

Client: ES Atlanta
Attention: Dan Lane
Address: 57 Executive Park South
N. E. - Suite 590
Atlanta, Ga. 30329

Laboratory Supervisor Approval:

RWB

Project: Volk Field AFB

Sample Nos.	1-chloro-2-bromopropane (61-145)	a-a-a-trifluorotoluene (43-181)
88030522	92	86
88030522 MS	95	109
88030522 MSD	96	113
88030523	99	103
88030527	85	135
88030528	85	81
88030529	94	104
88030530	78	79
88030531	79	83
88030532	91	91
88030533	95	97
88030536	97	93
88030537	102	111
88030538	74	74
88030539	81	72
88030540	92	104
88030540 MS	103	112
88030540 MSD	110	109
88030541	100	122
88030542	88	101
88030551	74	110
88030552	82	110
88030553	100	97
88030554	80	85
88030576	94	83
88030577	89	104
88030573 MS	NA	144
88030573 MSD	NA	123

* Asterisked values are outside of ES Laboratory limits.
EPA has not established percent recovery limits for these compounds.

NA = Not Analyzed

SURROGATE PERCENT RECOVERY
WATER
DATE REPORTED: 9-29-88

Job No.: AT077

Client: ES Atlanta
Attention: Dan Lane
Address: 57 Executive Park South
N. E. - Suite 590
Atlanta, Ga. 30329

Laboratory Supervisor Approval:



Project: Volk Field AFB

Sample Nos.	1-chloro-2-bromopropane (61-145)	a-a-a-trifluorotoluene (43-181)
88030555	106	96
88030556	90	83
88030557	88	84
88030558	86	88
88030558 MS	101	90
88030558 MSD	95	105
88030559	83	81
88030560	100	113
88030561	109	103
88030562	89	102
88030563	86	98
88030565	107	101
88030566	124	121
88030566 MS	97	105
88030566 MSD	102	115
88030567	106	68
88030568	110	116
88030569	83	98
88030570	113	125
88030572	86	100
88030573	112	125
88030574	85	95
88030575	96	102
88030561 MS	96	NA
88030561 MSD	69	NA

* Asterisked values are outside of ES Laboratory limits.
EPA has not established percent recovery limits for these compounds.

NA = Not Analyzed

SURROGATE PERCENT RECOVERY
WATER
DATE REPORTED: 9-26-88

Job No.: AT077

Client: ES Atlanta
Attention: Dan Lane
Address: 57 Executive Park South
N. E. - Suite 590
Atlanta, Ga. 30329

Laboratory Supervisor Approval:

DW Benton

Project: Volk Field AFB

Sample Nos.	1-chloro-2-bromopropane (61-145)	a-a-a-trifluorotoluene (43-181)
88071335	98	95
88071336	111	105
88071337	114	97
88071338	107	92
88071335 MS	74	81
88071335 MSD	65	109

* Asterisked values are outside of ES Laboratory limits.
EPA has not established percent recovery limits for these compounds.

QUALITY CONTROL REPORT
EPA METHOD 625/8270
MATRIX: WATER

Client: ES Atlanta/Volk AFB
Attn: Dan Lane
Address: 57 Executive Park South,
N.E., Suite 590
Atlanta, GA 30329

Job No.: AT077
QC Report No.: BNA-W-0020-88
Date Reported: 5/12/88
Laboratory Supervisor Approval:

[Signature]

QC Report for Samples: 88030536-0540

UNIT: ug/L

MATRIX SPIKE/MATRIX SPIKE DUPLICATE SUMMARY

: FRACTION :	COMPOUND	:CONC. SPIKE	:SAMPLE:CONC.:	%	:CONC.:	%	:EPA QC LIMITS*
:	:	: ADDED	: RESULT: MS	: REC: MSD	: REC: RPD	: RPD	: RECOVERY
:	: 1,2,4-Trichlorobenzene	: 100	: ND**	: 72.0	: 72	: 71.5	: 72: 1: 28 :39-98
:	: B/N :Acenaphthene	: 100	: ND	: 78.4	: 78	: 79.0	: 79: 1: 31 :46-118
:	: SMO :2,4-Dinitrotoluene	: 100	: ND	: 75.7	: 76	: 76.8	: 77: 1: 38 :24-96
:SAMPLE NO	: Pyrene	: 100	: ND	: 120	: 120	: 114	: 114: 5: 31 :26-127
:	: N-Nitroso Di-n-Propylamine	: 100	: ND	: 75.8	: 76	: 74.7	: 75: 1: 38 :41-116
: 88030536	: 1,4-Dichlorobenzene	: 100	: ND	: 70.3	: 70	: 71.0	: 71: 1: 28 :36-97
:	:	:	:	:	:	:	:
:	: ACID :Pentachlorophenol	: 200	: ND	: 186	: 93	: 134	: 67: 32: 50 :9-103
:	: SMO :Phenol	: 200	: ND	: 70.6	: 35	: 47	: 24: 40: 42 :12-89
:SAMPLE NO	: 2-Chlorophenol	: 200	: ND	: 148	: 74	: 107	: 54: 32: 40 :27-123
:	: 4-Chloro-3-Methylphenol	: 200	: ND	: 154	: 77	: 113	: 56: 31: 42 :23-97
: 88030536	: 4-Nitrophenol	: 200	: ND	: 78.2	: 39	: 47	: 24: 50: 50 :10-80
:	:	:	:	:	:	:	:

Date analyzed: 3/24/88

* Asterisked values are outside of EPA QC limits
** ND = Not Detected

BLANK SUMMARY

Blank Summary for Samples: 88030536-0540

Date analyzed: 3/29/88

Compound

Quantity

Bis(2-ethylhexyl)phthalate

5.29

NOTE: ALL SAMPLE RESULTS ARE BLANK-SUBTRACTED

QUALITY CONTROL REPORT
EPA METHOD 625/8270
MATRIX: WATER

Client: ES Atlanta/Volk AFB

Job No.: AT064

Attn: Jimmy Duncan
Address: 57 Executive Park South,
N.E., Suite 590
Atlanta, GA 30329

QC Report No.: BNA-W-0021-88
Date Reported: 4-28-88
Laboratory Supervisor Approval:

Report for Samples: 88030513, 88030522, 88030527-0531, 88030533

NIT: ug/L

MATRIX SPIKE/MATRIX SPIKE DUPLICATE SUMMARY

FRACTION :	COMPOUND	:CONC. SPIKE	:SAMPLE:CONC.:	%	:CONC.:	%	:	:EPA QC LIMITS*
:	:	ADDED	RESULT:	MS	REC:	MSD	REC:RPD:	RPD:RECOVERY
B/N	:1,2,4-Trichlorobenzene	100	: ND	: 33.3:33*	: 33.1: 33:	: 1 :	: 28 :	: 39-98
SMO	:Acenaphthene	100	: ND	: 35.3:35*	: 36.1:36*	: 2 :	: 31 :	: 46-118
SAMPLE NO	:2,4-Dinitrotoluene	100	: ND	: 38.4:38	: 40.0:40	: 4 :	: 38 :	: 24-96
	:Pyrene	100	: ND	: 22.9:23*	: 25.7:26	: 12 :	: 31 :	: 26-127
	:N-Nitroso Di-n-Propylamine	100	: ND	: 36.8:37*	: 41.6:42	: 12 :	: 38 :	: 41-116
88030531	:1,4-Dichlorobenzene	100	: ND	: 34.2:34*	: 35.2:35*	: 3 :	: 28 :	: 36-97
ACID	:Pentachlorophenol	200	: ND	: 55.5:28	: 65.4:33	: 16 :	: 50 :	: 9-103
SMO	:Phenol	200	: ND	: 27.8:14	: 27.8:14	: 0 :	: 42 :	: 12-89
SAMPLE NO	:2-Chlorophenol	200	: ND	: 50.5:25*	: 50.6:25*	: 0 :	: 40 :	: 27-123
	:4-Chloro-3-Methylphenol	200	: ND	: 39.2:20*	: 38.9:19*	: 1 :	: 42 :	: 23-97
88030531	:4-Nitrophenol	200	: ND	: 44.7:22	: 50.4:25	: 12 :	: 50 :	: 10-80

Date analyzed: 3-15-88

Asterisked values are outside of EPA QC limits. Insufficient sample available for reextraction.

A laboratory control sample showed the laboratory analysis is within control.

* ND = Not Detected

BLANK SUMMARY

Blank Summary for Samples: 88030513, 88030522, 88030527-0531, 88030533

Date analyzed: 3-14-88

Compound	Quantity
Diethyl phthalate	39.5
Bis(2-ethyl hexyl)phthalate	2.1

NOTE: ALL SAMPLE RESULTS ARE BLANK-SUBTRACTED

QUALITY CONTROL REPORT
EPA METHOD 625/8270
MATRIX: WATER

Job No.: AT077

Client: ES Atlanta/Volk field AFB
Attn: Dan Lane
Address: 57 Executive Park South
N. E., Suite 590
Atlanta, Ga. 30329

QC Report No.: BNA-W-0023-88
Date Reported: 5-16-88
Laboratory Supervisor Approval:

[Signature]

QC Report for Samples: 88030568,
88030572-88030576

Unit: ug/L

MATRIX SPIKE/MATRIX SPIKE DUPLICATE SUMMARY

Fraction	Compound	Conc. SA	Sample Result	Conc. MS	% REC	Conc MSD	% REC	RPD	EPA QC Limi RPD RECOVER
B/N SMO SAMPLE # 88030568	1,2,4-Trichlorobenzene	100	ND	52.4	52	43.7	44	17	28 39-98
	Acenaphthene	100	ND	56.1	56	52.4	52	7	31 46-118
	2,4-Dinitrotoluene	100	ND	54.9	55	45.6	46	18	38 24-96
	Pyrene	100	ND	45.7	46	48.2	48	4	31 26-127
	N-Nitroso Di-n-Propylamine	100	ND	53.5	54	45.9	46	16	38 41-116
	1,4-Dichlorobenzene	100	ND	51.4	51	44.3	44	15	28 36-97
ACID SMO SAMPLE # 88030568	Pentachlorophenol	200	ND	57.6	29	82.9	41	36	50 9-103
	Phenol	200	ND	76.9	38	58.2	29	28	42 12-89
	2-Chlorophenol	200	ND	117	59	100	50	16	40 27-123
	4-Chloro-3-Methylphenol	200	ND	120	60	65.9	33	58*	42 23-97
	4-Nitrophenol	200	ND	74.5	37	79.6	40	7	50 10-80

Date analyzed: 4-14-88

* Asterisked values are outside of EPA QC limits. 4-Chloro-3-methylphenol relative percent difference is outside the EPA range. Analysis of method blank spikes showed the laboratory to be in control.

** ND = Not detected

BLANK SUMMARY

Blank Summary for Samples: 88030568, 88030572-0576 Date analyzed: 4-14-88

Compound	Quantity
Bis (2-ethylhexyl)phthalate	6.3

NOTE: ALL SAMPLE RESULTS ARE BLANK SUBTRACTED

QUALITY CONTROL REPORT
EPA METHOD 625/8270
MATRIX: WATER

Job No.: AT077

Client: ES Atlanta/Volk field AFB
 Attn: Dan Lane
 Address: 57 Executive Park South
 N. E. - Suite 590
 Atlanta, Ga. 30329

QC Report No.: BNA-W-0024-88
 Date Reported: 5-16-88
 Laboratory Supervisor Approval:

AWB

QC Report for Samples: 88030561-88030562, 88030564-88030567,
 88030569

Unit: ug/L

MATRIX SPIKE/MATRIX SPIKE DUPLICATE SUMMARY

raction	Compound	Conc. SA	Sample Result	Conc. MS	% Conc REC	% Conc MSD	% REC	% RPD	EPA QC Limits RPD RECOVERY
	1,2,4-Trichloro-benzene	100	ND	51.3	51	49.9	50	3	28 39-98
B/N	Acenaphthene	100	ND	55.3	55	55.8	56	1	31 46-118
SMO	2,4-Dinitrotoluene	100	ND	54.1	54	57.4	57	6	38 24-96
SAMPLE #	Pyrene	100	ND	51.0	51	48.6	49	5	31 26-127
	N-Nitroso Di-n-Propylamine	100	ND	51.3	51	51.6	52	1	38 41-116
88030566	1,4-Dichlorobenzene	100	ND	51.1	51	48.4	48	5	28 36-97
ACID	Pentachlorophenol	200	ND	85.4	43	83.9	42	2	50 9-103
SMO	Phenol	200	ND	41.1	21	36.1	18	13	42 12-89
SAMPLE #	2-Chlorophenol	200	ND	63.9	32	56.3	28	13	40 27-123
	4-Chloro-3-Methylphenol	200	ND	49.2	25	46.1	23	7	42 23-97
88030566	4-Nitrophenol	200	ND	62.0	31	60.5	30	2	50 10-80

ate analyzed: 4/8/88

Asterisked values are outside of EPA QC limits.

ND = Not detected

BLANK SUMMARY

Blank Summary for Samples: 88030561-0562, 88030564-0567, 88030569

Date analysed: 4/8/88

Compound
None detected

Quantity

OTE: ALL SAMPLE RESULTS ARE BLANK SUBTRACTED

QUALITY CONTROL REPORT
EPA METHOD 625/8270
MATRIX: WATER

Job No.: AT077

Client: ES Atlanta/Volk field AFB
 Attn: Dan Lane
 Address: 57 Executive Park South
 N. E., Suite 590
 Atlanta, Ga. 30329

QC Report No.: BNA-W-0025-88
 Date Reported: 5-16-88
 Laboratory Supervisor Approval:

[Signature]

QC Report for Samples: 88030551-88030560

Unit: ug/L

MATRIX SPIKE/MATRIX SPIKE DUPLICATE SUMMARY

Fraction	Compound	Conc. SA	Sample Result	Conc. MS	% REC	Conc MSD	% REC	RPD	EPA QC Limit RPD RECOVERY
B/N SMO SAMPLE #	1,2,4-Trichlorobenzene	100	ND	60.9	61	46.1	46	28	39-98
	Acenaphthene	100	ND	74.1	74	55.6	56	28	46-11
	2,4-Dinitrotoluene	100	ND	73.6	74	61.4	61	19	24-96
	Pyrene	100	ND	49.9	50	46.5	46	8	26-12
	N-Nitroso Di-n-Propylamine	100	ND	71.4	71	50.1	50	35	41-11
88030555	1,4-Dichlorobenzene	100	ND	63.2	63	43.2	43	38*	28 36-97
ACID SMO SAMPLE #	Pentachlorophenol	200	ND	198	99	181	91	9	50 9-10
	Phenol	200	ND	91.4	46	66.1	33	32	42 12-89
	2-Chlorophenol	200	ND	147	74	103	51	35	40 27-12
	4-Chloro-3-Methylphenol	200	ND	128	64	129	65	1	42 23-97
88030555	4-Nitrophenol	200	ND	117	59	113	57	3	50 10-80

Date analyzed: 4-8-88

* Asterisked values are outside of EPA QC limits. Matrix effects caused the relative percent deviation for 1,4-dichlorobenzene to be higher than EPA recommended guidelines. Analysis of spiked blanks showed the laboratory to be in control.

** ND = Not detected

BLANK SUMMARY

Blank Summary for Samples: 88030551-88030560

Date analyzed: 3-17-88

Compound
 Bis (2-ethylhexyl) phthalate

Quantity
 3

NOTE: ALL SAMPLE RESULTS ARE BLANK SUBTRACTED

SEMIVOLATILE SURROGATE PERCENT RECOVERY WATER

Job No.: AT077 Date Reported: 9-27-88

Client: ES Atlanta
Attn: Jimmy Duncan
Address: 57 Executive Park South
N. E. - Suite 590
Atlanta, Ga. 30329

Laboratory Supervisor Approval:

[Signature]

Project: Volk Field AFB

Sample No.	Nitro- benzene-d5 35-114	2-Fluoro- biphenyl 43-116	4,4'-Dibromo- biphenyl 33-141	phenol-d5 10-94	2-Fluoro- phenol 21-100	2,4,6-Tribromo- phenol 10-123
88030513	52	51	57	23	33	47
88030522	41	41	43	25	37	44
88030527	42	42	40	26	37	38
88030528	51	53	51	17	26	40
88030529	52	53	57	20	31	39
88030530	43	44	40	10	15 *	26
88030531	38	43	34	7 *	9 *	21
88030533	30 *	31	34	22	25	30
88030531 MS	29 *	30 *	30	39	41 *	42
88030531 MSD	39	41 *	42	14	16 *	27
Blank	55	55	68	22	29	51
Blank MS	72	73	93	48	51	87
Blank MSD	67	69	80	68	66	100
88030536	52	60	81	22	33	60
88030537	53	53	56	22	33	71
88030538	55	65	61	19	33	52
88030539	76	75	97	29	45	67
88030540	82	82	83	35	38	52
88030536 MS	84	81	101	29	46	71
88030536 MSD	81	86	108	22	34	55
Blank	75	78	92	20	33	52

* Values are outside EPA QC limits.

SEMI-VOLATILE SURROGATE PERCENT RECOVERY WATER

Job No.:

AT077

Client: ES Atlanta
Attn: Jimmy Duncan
Address: 57 Executive Park South
N. E. - Suite 590
Atlanta, Ga. 30329

Date Reported: 9-27-88

Project:

Volk Field AFB

Laboratory Supervisor Approval:

[Signature]

Sample No.	Nitro- benzene-d5 35-114	2-Fluoro- biphenyl 43-116	4,4'-Dibromo- biphenyl 33-141	phenol-d5 10-94	2-Fluoro- phenol 21-100	2,4,6-Tribromo- phenol 10-123
88030551	49	58	92	28	38	53
88030552	49	51	87	12	9 *	22
88030553	9 *	9 *	15 *	8 *	8 *	22
88030553 R	9 *	9 *	14 *	8 *	7 *	20
88030554	11 *	23 *	20	31	40	67
88030554 R	26 *	23 *	18	31	40	67
88030555	50	54	99	0 *	0 *	410 *
88030555 R	50	54	99	33	35	36
88030556	60	64	70	32	43	66
88030557	59	60	72	22	29	46
88030558	42	45	58	19	25	38
88030559	52	53	59	21	29	51
88030560	36	41 *	65	15	20 *	48
88030560 R	38	42 *	66	15	21	39
88030555 MS	50	50	99	31	37	59
88030555 MSD	68	73	109	47	54	68
Blank	58	52	93	21	33	60

* Values are outside EPA QC limits.
R Re-extracted sample results.

SEMIVOLATILE SURROGATE PERCENT RECOVERY WATER

Job No.:

AT077

Date Reported:

9-27-88

Client:

ES Atlanta

Attn:

Jimmy Duncan

Address:

57 Executive Park South
N. E. - Suite 590
Atlanta, Ga. 30329

Laboratory Supervisor Approval:

Project:

Volk Field AFB

[Signature]

Sample No.	Nitro- benzene-d5 35-114	2-Fluoro- biphenyl 43-116	4,4'-Dibromo- biphenyl 33-141	phenol-d5 10-94	2-Fluoro- phenol 21-100	2,4,6-Tribromo- phenol 10-123
88030561	42	44	54	14	19 *	37
88030562	71	65	95	20	29	50
88030565	74	71	76	25	37	56
88030566	54	55	63	17	15 *	26
88030567	88	84	85	16	18 *	30
88030568	60	65	70	28	25	35
88030569	8 *	26 *	15 *	36	49	116
88030569 R	3 *	26 *	15 *	34	46	102
88030572	8 *	30 *	11 *	23	25	41
88030572 R	11 *	17 *	9 *	22	52	54
88030566 MS	57	55	62	19	16 *	26
88030566 MSD	56	56	68	17	17 *	28
88030568 MS	55	59	61	34	37	45
88030568 MSD	46	54	70	28	30	34
Blank	49	50	69	20	28	46
88030573	66	37 *	12 *	26	34	78
88030574	82	73	70	25	37	59
88030575	69	57	32	32	43	80
88030576	58	55	30	24	33	52
88030573 R	64	56	23	22	52	54

* Values are outside EPA QC limits.
R Re-extracted sample results.

88-A1-VOLK0099 1

SR-FRM05

QUALITY CONTROL REPORT
EPA METHOD 625/8270
MATRIX: SOIL

Client: ES Atlanta/Volk Field AFB

Job No.: AT077

Attn: Jimmy Duncan
Address: 57 Executive Park South,
N.E., Suite 590
Atlanta, GA 30329

QC Report No.: BNA-S-0011Re-88
Date Reported: 3/15/88
Laboratory Supervisor Approval:

QC Report for Samples: 88010186 - 88010195

UNIT: mg/Kg

MATRIX SPIKE/MATRIX SPIKE DUPLICATE SUMMARY

FRACTION :	COMPOUND	:CONC. SPIKE	:SAMPLE:CONC.:	%	:CONC.:	%	:	EPA QC LIMITS*
:	:	ADDED	RESULT:	MS	REC:	MSD	REC:	RPD: RPD: RECOVERY
B/N	:1,2,4-Trichlorobenzene	: 3.33	: ND**:	1.84:	55:	1.92:	58:	4: 23 : 38-107
SMO	:Acenaphthene	: 3.33	: ND	: 1.94:	58:	1.98:	59:	2: 19 : 31-137
SAMPLE NO	:2,4-Dinitrotoluene	: 3.33	: ND	: 2.80:	84:	2.74:	82:	2: 47 : 28-89
	:Pyrene	: 3.33	: ND	: 1.84:	55:	1.79:	54:	3: 36 : 35-142
	:N-Nitroso Di-n-Propylamine	: 3.33	: ND	: 2.38:	71:	2.26:	68:	5: 38 : 41-126
88010186Re:	:1,4-Dichlorobenzene	: 3.33	: ND	: 1.93:	58:	1.94:	58:	1: 27 : 28-104
ACID	:Pentachlorophenol	: 6.67	: ND	: 4.87:	73:	4.77:	72:	2: 47 : 17-109
SMO	:Phenol	: 6.67	: ND	: 4.20:	63:	4.17:	62:	1: 35 : 26-90
SAMPLE NO	:2-Chlorophenol	: 6.67	: ND	: 3.93:	59:	4.10:	61:	4: 50 : 25-102
	:4-Chloro-3-Methylphenol	: 6.67	: ND	: 4.63:	69:	4.77:	72:	3: 33 : 26-103
88010186Re:	:4-Nitrophenol	: 6.67	: ND	: 5.33:	80:	5.27:	79:	1: 50 : 11-114

Date analyzed: 2-29-88

Asterisked values are outside of EPA QC limits

* ND = Not Detected

BLANK SUMMARY

Blank Summary for Samples: 88010186 - 88010195

Date analyzed: 2-29-88

CompoundQuantity

None Found

NOTE: ALL SAMPLE RESULTS ARE BLANK-SUBTRACTED

QUALITY CONTROL REPORT
EPA METHOD 625/8270
MATRIX: SOIL

Client: ES Atlanta/Volk Field AFB
Attn: Jimmy Duncan
Address: 57 Executive Park South,
N.E., Suite 590
Atlanta, GA 30329

Job No.: AT077

QC Report No.: BNA-S-0011-88
Date Reported: 3/15/88
Laboratory Supervisor Approval:

[Signature]

QC Report for Samples: 88010186 - 88010195

UNIT: mg/Kg

MATRIX SPIKE/MATRIX SPIKE DUPLICATE SUMMARY

FRACTION :	COMPOUND	:CONC. SPIKE	:SAMPLE:CONC.:	%	:CONC.:	%	:	EPA QC LIMITS*
		ADDED	RESULT:	MS	REC:	MSD	REC:RPD:	RPD :RECOVERY
	1,2,4-Trichlorobenzene	3.33	ND**	1.82	55:	2.45	74:30*:	23 : 38-107
B/N	Acenaphthene	3.33	ND	1.79	54:	2.28	68:24*:	19 : 31-137
SMO	2,4-Dinitrotoluene	3.33	ND	2.18	65:	2.43	73:11 :	47 : 28-89
SAMPLE NO	Pyrene	3.33	ND	1.54	46:	1.83	55:17 :	36 : 35-142
	N-Nitroso Di-n-Propylamine	3.33	ND	1.80	54:	2.35	71:27 :	38 : 41-126
88010186	1,4-Dichlorobenzene	3.33	ND	1.59	48:	2.24	67:34*:	27 : 28-104
ACID	Pentachlorophenol	6.67	ND	5.27	79:	6.10	91:15 :	15 : 17-109
SMO	Phenol	6.67	ND	3.11	47:	3.90	58:23 :	23 : 26-90
SAMPLE NO	2-Chlorophenol	6.67	ND	2.90	43:	3.90	58:29 :	29 : 25-102
	4-Chloro-3-Methylphenol	6.67	ND	4.23	63:	4.93	74:15 :	15 : 26-103
88010186	4-Nitrophenol	6.67	ND	4.83	72:	5.23	78: 8 :	8 : 11-114

Date analyzed: 2-08-88

* Asterisked values are outside of EPA QC limits
** ND = Not Detected

The quality control set was reextracted and reanalyzed; relative percent differences are within the EPA recommended criteria. Please see QC report number BNA-S-0011Re-88.

BLANK SUMMARY

Blank Summary for Samples: 88010186 - 88010195

Date analyzed: 2-08-88

<u>Compound</u>	<u>Quantity</u>
Di-n-butyl phthalate	3.97
Bis(2-ethyl hexyl)phthalate	1.1

NOTE: ALL SAMPLE RESULTS ARE BLANK-SUBTRACTED

QUALITY CONTROL REPORT
EPA METHOD 625/8270
MATRIX: SOIL

Client: ES Atlanta/Volk Field AFB

Job No.: AT077

Attn: Jimmy Duncan

QC Report No.: BNA-S-0012Re-88

Address: 57 Executive Park South,
N.E., Suite 590
Atlanta, GA 30329

Date Reported: 3/15/88

Laboratory Supervisor Approval:

QC Report for Samples: 88010196 - 88010199

UNIT: mg/Kg

MATRIX SPIKE/MATRIX SPIKE DUPLICATE SUMMARY

FRACTION :	COMPOUND	:CONC. SPIKE	:SAMPLE:CONC.:	%	:CONC.:	%	:	EPA QC LIMITS*
:	:	: ADDED	: RESULT: MS	: REC:	MSD	: REC:	RPD	: RPD : RECOVERY
:	: 1,2,4-Trichlorobenzene	: 3.33	: ND**	: 2.22	: 67:	: 2.01	: 60:	: 10: 23 : 38-107
:	: B/N :Acenaphthene	: 3.33	: ND	: 2.04	: 61:	: 1.93	: 58:	: 6: 19 : 31-137
:	: SMO :2,4-Dinitrotoluene	: 3.33	: ND	: 2.46	: 74:	: 2.56	: 77:	: 4: 47 : 28-89
: SAMPLE NO	: Pyrene	: 3.33	: ND	: 2.17	: 65:	: 2.43	: 73:	: 11: 36 : 35-142
:	: N-Nitroso Di-n-Propylamine	: 3.33	: ND	: 2.38	: 71:	: 2.38	: 71:	: 0: 38 : 41-126
: 88010196Re	: 1,4-Dichlorobenzene	: 3.33	: ND	: 2.17	: 65:	: 2.07	: 62:	: 5: 27 : 28-104
:	:	:	:	:	:	:	:	:
:	: ACID :Pentachlorophenol	: 6.67	: ND	: 4.67	: 70:	: 4.77	: 72:	: 2: 47 : 17-109
:	: SMO :Phenol	: 6.67	: ND	: 4.37	: 66:	: 3.63	: 54:	: 18: 35 : 26-90
: SAMPLE NO	: 2-Chlorophenol	: 6.67	: ND	: 4.17	: 62:	: 3.77	: 56:	: 10: 50 : 25-102
:	: 4-Chloro-3-Methylphenol	: 6.67	: ND	: 4.20	: 63:	: 3.13	: 42:	: 29: 33 : 26-103
: 88010196Re	: 4-Nitrophenol	: 6.67	: ND	: 4.60	: 69:	: 4.57	: 68:	: 1: 50 : 11-114
:	:	:	:	:	:	:	:	:

Date analyzed: 2-29-88

* Asterisked values are outside of EPA QC limits

** ND = Not Detected

BLANK SUMMARY

Blank Summary for Samples: 88010196 - 88010199

Date analyzed: 2-29-88

CompoundQuantity

None Found

NOTE: ALL SAMPLE RESULTS ARE BLANK-SUBTRACTED

QUALITY CONTROL REPORT
EPA METHOD 625/8270
MATRIX: SOIL
Revised Report - 3-30-88

Client: ES Atlanta/Volk Field AFB
Attn: Jimmy Duncan
Address: 57 Executive Park South,
N.E., Suite 590
Atlanta, GA 30329

Job No.: AT077

QC Report No.: BNA-S-0012-88
Date Reported: 3/15/88
Laboratory Supervisor Approval:

Report for Samples: 88010196 - 88010199

UNIT: mg/Kg

MATRIX SPIKE/MATRIX SPIKE DUPLICATE SUMMARY

FRACTION :	COMPOUND	:CONC. SPIKE	:SAMPLE:CONC.: %	:CONC.: %	:EPA QC LIMITS*
		ADDED	RESULT: MS	REC: MSD	REC: RPD
	1,2,4-Trichlorobenzene	3.33	ND**	2.09: 63: 1.85: 56: 12	23: 38-107
B/N	Acenaphthene	3.33	ND	1.80: 54: 1.76: 53: 2	19: 31-137
SMO	2,4-Dinitrotoluene	3.33	ND	2.22: 67: 2.16: 65: 3	47: 28-89
SAMPLE NO	Pyrene	3.33	ND	1.46: 44: 1.50: 45: 3	36: 35-142
	N-Nitroso Di-n-Propylamine	3.33	ND	2.99: 90: 1.88: 56: 46*	38: 41-126
88010196	1,4-Dichlorobenzene	3.33	ND	1.91: 57: 1.75: 53: 9	27: 28-104
ACID	Pentachlorophenol	6.67	ND	6.07: 91: 3.47: 82: 55*	47: 17-109
SMO	Phenol	6.67	ND	3.20: 48: 3.07: 46: 4	35: 26-90
SAMPLE NO	2-Chlorophenol	6.67	ND	3.57: 54: 3.02: 45: 17	50: 25-102
	4-Chloro-3-Methylphenol	6.67	ND	4.13: 62: 3.83: 57: 8	33: 26-103
88010196	4-Nitrophenol	6.67	ND	5.20: 78: 4.43: 66: 16	50: 11-114

ate analyzed: 2-09-88

Asterisked values are outside of EPA QC limits

* ND = Not Detected

The quality control set was reextracted and reanalyzed; relative percent differences are within the EPA criteria. Please see QC report number BNA-S-0012Re-88.

BLANK SUMMARY

Blank Summary for Samples: 88010196 - 88010199

Date analyzed: 2-08-88

<u>Compound</u>	<u>Quantity</u>
Di-n-butyl phthalate	3.97
Bis(2-ethyl hexyl)phthalate	1.1

NOTE: ALL SAMPLE RESULTS ARE BLANK-SUBTRACTED

QUALITY CONTROL REPORT
EPA METHOD 625/8270
MATRIX: SOIL

Client: ES Atlanta/Volk Field AFB
Attn: Dan Lane
Address: 57 Executive Park South,
N.E., Suite 590
Atlanta, GA 30329

Job No.: AT077
QC Report No.: BNA-S-0013-88
Date Reported: 3/15/88
Laboratory Supervisor Approval:

[Signature]

QC Report for Samples: 88010211 - 88010220

UNIT: mg/Kg

MATRIX SPIKE/MATRIX SPIKE DUPLICATE SUMMARY

: FRACTION :	COMPOUND	:CONC. SPIKE	:SAMPLE:CONC.:	%	:CONC.:	%	:	EPA QC LIMITS*
:	:	ADDED	RESULT:	MS	REC:	MSD	REC:RPD:	RPD:RECOVERY
:	:1,2,4-Trichlorobenzene	: 3.33	: ND**:	2.09:	63:	2.24:	67:	7: 23 : 38-107
: B/N	:Acenaphthene	: 3.33	: ND	: 2.11:	63:	2.06:	62:	2: 19 : 31-137
: SMO	:2,4-Dinitrotoluene	: 3.33	: ND	: 2.51:	75:	2.63:	79:	5: 47 : 28-89
:SAMPLE NO	:Pyrene	: 3.33	: ND	: 2.28:	68:	2.19:	66:	4: 36 : 35-142
:	:N-Nitroso Di-n-Propylamine	: 3.33	: ND	: 1.92:	58:	2.13:	64:	10: 38 : 41-126
: 88010220	:1,4-Dichlorobenzene	: 3.33	: ND	: 2.03:	61:	2.12:	64:	4: 27 : 28-104
:	:	:	:	:	:	:	:	:
: ACID	:Pentachlorophenol	: 6.67	: ND	: 4.73:	71:	4.87:	73:	3: 47 : 17-109
: SMO	:Phenol	: 6.67	: ND	: 3.53:	53:	3.37:	50:	5: 35 : 26-90
:SAMPLE NO	:2-Chlorophenol	: 6.67	: ND	: 3.67:	55:	3.87:	58:	5: 50 : 25-102
:	:4-Chloro-3-Methylphenol	: 6.67	: ND	: 3.70:	55:	3.24:	49:	13: 33 : 26-103
: 88010220	:4-Nitrophenol	: 6.67	: ND	: 4.63:	69:	5.33:	80:	14: 50 : 11-114
:	:	:	:	:	:	:	:	:

Date analyzed: 3-01-88

* Asterisked values are outside of EPA QC limits
** ND = Not Detected

BLANK SUMMARY

Blank Summary for Samples: 88010211 - 88010220

Date analyzed: 2-19-88

<u>Compound</u>	<u>Quantity</u>
None Found	-----

NOTE: ALL SAMPLE RESULTS ARE BLANK-SUBTRACTED

174.3.1

QUALITY CONTROL REPORT
EPA METHOD 625/8270
MATRIX: SOIL

Client: ES Atlanta/Volk AFB
Attn: Dan Lane
Address: 57 Executive Park South,
N.E., Suite 590
Atlanta, GA 30329

Job No.: AT077

QC Report No.: BNA-S-0016-88
Date Reported: 5/11/88
Laboratory Supervisor Approval:

ALW Buxton

QC Report for Samples: 88010204-0210

UNIT: mg/Kg

MATRIX SPIKE/MATRIX SPIKE DUPLICATE SUMMARY

: FRACTION :	COMPOUND	: CONC. SPIKE :	SAMPLE: CONC. :	% :	CONC. :	% :	EPA QC LIMITS*
:	:	ADDED	RESULT: MS	REC:	MSD	REC: RPD	RPD : RECOVERY
:	1,2,4-Trichlorobenzene	3.33	ND**	2.26	68	2.13	64: 6 : 23 : 38-107
: B/N :	Acenaphthene	3.33	ND	2.00	60	2.04	61: 2 : 19 : 31-137
: SMO :	2,4-Dinitrotoluene	3.33	ND	2.35	70	2.38	72: 2 : 47 : 28-89
: SAMPLE NO :	Pyrene	3.33	ND	1.54	46	1.60	48: 8 : 36 : 35-142
:	N-Nitroso Di-n-Propylamine	3.33	ND	2.10	63	1.87	56: 11 : 38 : 41-126
: 88010204 :	1,4-Dichlorobenzene	3.33	ND	2.08	62	1.83	55: 13 : 27 : 28-104
:	:	:	:	:	:	:	:
: ACID :	Pentachlorophenol	6.67	ND	4.47	67	4.87	73: 8 : 47 : 17-109
: SMO :	Phenol	6.67	ND	3.93	59	3.53	53: 11 : 35 : 26-90
: SAMPLE NO :	2-Chlorophenol	6.67	ND	3.47	62	3.40	51: 2 : 50 : 25-102
:	4-Chloro-3-Methylphenol	6.67	ND	3.87	58	4.10	62: 6 : 33 : 26-103
: 88010204 :	4-Nitrophenol	6.67	ND	5.70	86	5.47	82: 4 : 50 : 11-114
:	:	:	:	:	:	:	:

Date analyzed: 2/19/88

* Asterisked values are outside of EPA QC limits

** ND = Not Detected

BLANK SUMMARY

Blank Summary for Samples: 88010204-0210

Date analyzed: 2/19/88

Compound

Quantity

None detected

—

NOTE: ALL SAMPLE RESULTS ARE BLANK-SUBTRACTED

181.16.2

QUALITY CONTROL REPORT
EPA METHOD 625/8270
MATRIX: SOIL

Client: ES Atlanta/Volk AFB
Attn: Dan Lane
Address: 57 Executive Park South,
N.E., Suite 590
Atlanta, GA 30329

Job No.: AT077

QC Report No.: BNA-S-0017-88
Date Reported: 5/11/88
Laboratory Supervisor Approval:

[Signature]

QC Report for Samples: 88020289-0300

UNIT: mg/Kg

MATRIX SPIKE/MATRIX SPIKE DUPLICATE SUMMARY

: FRACTION :	COMPOUND	: CONC. SPIKE :	SAMPLE: CONC. :	% :	CONC. :	% :	EPA QC LIMITS*			
:	:	ADDED	RESULT:	MS	REC:	MSD	REC: RPD	RPD	RECOVERY	
:	1,2,4-Trichlorobenzene	3.33	ND**:	2.48:	74:	2.45:	74:	1:	23:	38-107
B/N	Acenaphthene	3.33	ND	2.54:	76:	2.51:	75:	1:	19:	31-137
SMO	2,4-Dinitrotoluene	3.33	ND	1.32:	40:	1.47:	44:	11:	47:	28-89
SAMPLE NO	Pyrene	3.33	ND	4.14:	124:	4.36:	131:	5:	36:	35-142
:	N-Nitroso Di-n-Propylamine	3.33	ND	1.96:	59:	1.96:	59:	0:	38:	41-126
88020289	1,4-Dichlorobenzene	3.33	ND	2.19:	66:	2.20:	66:	0:	27:	28-104
:	:	:	:	:	:	:	:	:	:	:
ACID	Pentachlorophenol	6.67	ND	5.01:	75:	5.13:	77:	2:	47:	17-109
SMO	Phenol	6.67	ND	3.27:	49:	3.31:	50:	1:	35:	26-90
SAMPLE NO	2-Chlorophenol	6.67	ND	3.58:	54:	3.59:	54:	0:	50:	25-102
:	4-Chloro-3-Methylphenol	6.67	ND	2.46:	37:	2.24:	34:	9:	33:	26-103
88020289	4-Nitrophenol	6.67	ND	5.18:	78:	4.87:	43:	6:	50:	11-114
:	:	:	:	:	:	:	:	:	:	:

Date analyzed: 3/08/88

* Asterisked values are outside of EPA QC limits

** ND = Not Detected

BLANK SUMMARY

Blank Summary for Samples: 88020289-0300

Date analyzed: 3/08/88

Compound

Quantity

None detected

NOTE: ALL SAMPLE RESULTS ARE BLANK-SUBTRACTED

QUALITY CONTROL REPORT
EPA METHOD 625/8270
MATRIX: SOIL

Client: ES Atlanta/Volk AFB
Attn: Dan Lane
Address: 57 Executive Park South,
N.E., Suite 590
Atlanta, GA 30329

Job No.: AT077

QC Report No.: BNA-S-0018-88
Date Reported: 4/14/88
Laboratory Supervisor Approval:

RANBuxton

QC Report for Samples: 88010211-0212, 88010214-0220

UNIT: mg/Kg

MATRIX SPIKE/MATRIX SPIKE DUPLICATE SUMMARY

: FRACTION :		COMPOUND	: CONC. SPIKE :	SAMPLE:CONC.:	% : CONC.:	% :	: EPA QC LIMITS*:				
			ADDED	RESULT:	MS	REC:	MSD	REC:	RPD:	RPD	RECOVERY:
		: 1,2,4-Trichlorobenzene	3.33	: ND**:	2.09:	63:	2.24:	67:	7:	23:	38-107
	B/N	: Acenaphthene	3.33	: ND	: 2.11:	63:	2.06:	62:	2:	19:	31-137
	SMO	: 2,4-Dinitrotoluene	3.33	: ND	: 2.51:	75:	2.63:	79:	5:	47:	28-89
	SAMPLE NO	: Pyrene	3.33	: ND	: 2.28:	68:	2.19:	66:	4:	36:	35-142
		: N-Nitroso Di-n-Propylamine	3.33	: ND	: 1.92:	58:	2.13:	64:	10:	38:	41-126
	88010220	: 1,4-Dichlorobenzene	3.33	: ND	: 2.03:	61:	2.12:	64:	4:	27:	28-104
	ACID	: Pentachlorophenol	6.67	: ND	: 4.73:	71:	4.87:	73:	3:	47:	17-109
	SMO	: Phenol	6.67	: ND	: 3.53:	53:	3.37:	51:	5:	35:	26-90
	SAMPLE NO	: 2-Chlorophenol	6.67	: ND	: 3.87:	58:	3.87:	58:	0:	50:	25-102
		: 4-Chloro-3-Methylphenol	6.67	: ND	: 3.70:	55:	3.24:	49:	13:	33:	26-103
	88010220	: 4-Nitrophenol	6.67	: ND	: 4.63:	69:	5.33:	80:	14:	50:	11-114

Date analyzed: 3/01/88

* Asterisked values are outside of EPA QC limits

** ND = Not Detected

BLANK SUMMARY

Blank Summary for Samples: 88010211-00212, 88010-00214-0220

Date analyzed: 2/19/88

Compound

Quantity

None found

NOTE: ALL SAMPLE RESULTS ARE BLANK-SUBTRACTED

QUALITY CONTROL REPORT
EPA METHOD 625/8270
MATRIX: SOIL

Client: ES Atlanta/Volk Field AFB

Job No.: AT064

Attn: Jimmy Duncan
Address: 57 Executive Park South,
N.E., Suite 590
Atlanta, GA 30329

QC Report No.: BNA-S-0021Re-88
Date Reported: 4-28-88
Laboratory Supervisor Approval:

M. B. Burton

QC Report for Samples: 88020371-0378

UNIT: ug/Kg

MATRIX SPIKE/MATRIX SPIKE DUPLICATE SUMMARY

: FRACTION :	COMPOUND	: CONC. SPIKE :	SAMPLE: CONC.:	% :	CONC.:	% :	: EPA QC LIMITS*			
:	:	: ADDED	: RESULT:	MS	: REC:	MSD	: REC:	RPD	RPD	: RECOVERY
:	: 1,2,4-Trichlorobenzene	: 3330	: ND	: 1900:	57	: 2240:	67	: 16	: 23	: 38-107
: B/N	: Acenaphthene	: 3330	: ND	: 2210:	66	: 2380:	72	: 7	: 19	: 31-137
: SMO	: 2,4-Dinitrotoluene	: 3330	: ND	: 2630:	79	: 2580:	78	: 2	: 47	: 28-89
: SAMPLE NO	: Pyrene	: 3330	: ND	: 2660:	80	: 2410:	72	: 10	: 36	: 35-142
:	: N-Nitroso Di-n-Propylamine	: 3330	: ND	: 2220:	67	: 2570:	77	: 15	: 38	: 41-126
: 88020371Re	: 1,4-Dichlorobenzene	: 3330	: ND	: 1980:	60	: 2370:	71	: 18	: 27	: 28-104
:	:	:	:	:	:	:	:	:	:	:
: ACID	: Pentachlorophenol	: 6670	: ND	: 6870:	103	: 6730:	101	: 2	: 47	: 17-109
: SMO	: Phenol	: 6670	: ND	: 3990:	60	: 4460:	67	: 11	: 35	: 26-90
: SAMPLE NO	: 2-Chlorophenol	: 6670	: 2.3	: 3980:	60	: 4680:	70	: 16	: 50	: 25-102
:	: 4-Chloro-3-Methylphenol	: 6670	: ND	: 4410:	66	: 4840:	73	: 9	: 33	: 26-103
: 88020371Re	: 4-Nitrophenol	: 6670	: ND	: 5530:	83	: 5090:	76	: 8	: 50	: 11-114
:	:	:	:	:	:	:	:	:	:	:

Date analyzed: 3-28-88

* Asterisked values are outside of EPA QC limits

** ND = Not Detected

BLANK SUMMARY

Blank Summary for Samples: 88020371-0378

Date analyzed: 3-21-88

Compound	Quantity
Diethylphthalate	68.9
Di-n-butylphthalate	2910
Bis-2-ethylphthalate	78.6

NOTE: ALL SAMPLE RESULTS ARE BLANK-SUBTRACTED

179.28.3

QUALITY CONTROL REPORT
EPA METHOD 625/8270
MATRIX: SOIL

Client: ES Atlanta/Volk Field AFB

Job No.: AT064

Attn: Jimmy Duncan
Address: 57 Executive Park South,
N.E., Suite 590
Atlanta, GA 30329

QC Report No.: BNA-S-0021-88
Date Reported: 4-28-88
Laboratory Supervisor Approval:



QC Report for Samples: 88020371-0378

UNIT: ug/Kg

MATRIX SPIKE/MATRIX SPIKE DUPLICATE SUMMARY

: FRACTION :	COMPOUND	:CONC. SPIKE	:SAMPLE:CONC.:	%	:CONC.:	%	:EPA QC LIMITS*
:	:	ADDED	RESULT:	MS	REC:	MSD	REC:RPD: RPD :RECOVERY
:	1,2,4-Trichlorobenzene	3330	ND	1240:37*	1250:38	1	23 : 38-107
:	B/N :Acenaphthene	3330	ND	1150:34	1160:35	1	19 : 31-137
:	SMO :2,4-Dinitrotoluene	3330	ND	1620:49	1370:41	17:	47 : 28-89
:SAMPLE NO :	Pyrene	3330	ND	1420:43	885:27*	46*	36 : 35-142
:	N-Nitroso Di-n-Propylamine	3330	ND	1114:33*	1250:38*	12:	38 : 41-126
: 88020371 :	1,4-Dichlorobenzene	3330	ND	1200:36	1290:39	7	27 : 28-104
:	:	:	:	:	:	:	:
:	ACID :Pentachlorophenol	6670	ND	3020:45	2680:40	12:	47 : 17-109
:	SMO :Phenol	6670	ND	1550:23*	1760:26	13:	35 : 26-90
:SAMPLE NO :	2-Chlorophenol	6670	ND	1900:28	2130:32	11:	50 : 25-102
:	4-Chloro-3-Methylphenol	6670	ND	828:12*	924:14*	11:	33 : 26-103
: 88020371 :	4-Nitrophenol	6670	ND	3070:46	2870:43	7	50 : 11-114
:	:	:	:	:	:	:	:

Date analyzed: 3-14-88

* Asterisked values are outside of EPA QC limits

** ND = Not Detected

The quality control set was reextracted and reanalyzed. The resulting QC results are within the EPA criteria. Please see report number BNA-S-0021RE-88.

BLANK SUMMARY

Blank Summary for Samples: 88020371-0378

Date analyzed: 3-14-88

Compound
Di-n-butylphthalate

Quantity
370

NOTE: ALL SAMPLE RESULTS ARE BLANK-SUBTRACTED

179.28.2

SEMIVOLATILE SURROGATE PERCENT RECOVERY SOIL

Job No.: AT077 Date Reported: 9-27-88

Client: ES Atlanta
Attn: Jimmy Duncan
Address: 57 Executive Park South
N. E. - Suite 590
Atlanta, Ga. 30329

Project: Volk Field AFB

Laboratory Supervisor Approval:

Sample No.	Nitro- benzene-d5 23-120	2-Fluoro- biphenyl 30-115	4,4'-Dibromo- biphenyl 18-137	phenol-d5 24-113	2-Fluoro- phenol 25-121	2,4,6-Tribromo- phenol 19-122
Blank	52	50	68	46	37	46
88010204	69	66	91	63	52	55
88010204 MS	68	62	88	59	44	48
88010204 MSD	65	61	85	54	44	58
88010205	74	90	101	71	64	80
88010206	72	73	89	56	47	31
88010207	52	55	78	7 *	7 *	0 *
88010208	43	48	82	38	28	53
88010209	55	65	73	31	13 *	18 *
88010210	55	59	78	41	25	35
88010211	55	58	79	33	16 *	31
88010212	58	68	85	4 *	8 *	0 *
Blank	56	60	60	57	50	58
88010207 R	65	77	70	66	58	69
88010209 R	77	48	65	78	65	51
88010212 R	80	105	58	86	73	55

* Values are outside EPA QC limits.
R Re-extracted sample results.

SEMIVOLATILE SURROGATE PERCENT RECOVERY SOIL

Job No.:

AT077

Date Reported:

9-27-88

Client:

ES Atlanta

Attn:

Jimmy Duncan

Address:

57 Executive Park South

N. E. - Suite 590

Atlanta, Ga. 30329

Laboratory Supervisor Approval:

Project:

Volk Field AFB

[Signature]

Sample No.	Nitro- benzene-d5 23-120	2-Fluoro- biphenyl 30-115	4,4'-Dibromo- biphenyl 18-137	phenol-d5 24-113	2-Fluoro- phenol 25-121	2,4,6-Tribromo- phenol 19-122
Blank	52	50	68	46	37	46
88010214	66	57	80	45	32	37
88010215	74	64	81	58	64	53
88010216	61	55	68	40	45	52
88010217	66	61	71	37	47	57
88010218	88	70	83	22 *	61	61
88010219	72	64	68	53	54	55
88010220	118	110	151 *	72	56	87
88010220 MS	72	68	86	56	46	54
88010220 MSD	73	69	86	51	44	54

F-55

* Values are outside EPA QC limits.

SEMIVOLATILE SURROGATE PERCENT RECOVERY SOIL

Job No.: AT077 Date Reported: 9-27-88

Client: ES Atlanta
Attn: Jimmy Duncan
Address: 57 Executive Park South
N. E. - Suite 590
Atlanta, Ga. 30329

Laboratory Supervisor Approval:

[Signature]

Project: Volk Field AFB

Sample No.	Nitro- benzene-d5 23-120	2-Fluoro- biphenyl 30-115	4,4'-Dibromo- biphenyl 18-137	phenol-d5 24-113	2-Fluoro- phenol 25-121	2,4,6-Tribromo- phenol 19-122
Blank	69	62	71	60	47	54
88010186	61	55	79	63	50	53
88010186 MS	70	58	72	64	53	53
88010186 MSD	69	59	69	63	55	53
88010187	50	49	94	42	32	62
88010188	DL	DL	DL	DL	DL	DL
88010189	DL	DL	DL	DL	DL	DL
88010190	68	66	63	48	29	47
88010191	68	67	75	38	31	54
88010192	66	73	87	35	32	68
88010193	65	64	96	49	40	55
88010194	53	51	91	48	45	66
88010195	63	59	93	55	44	66
88010196	76	62	91	60	49	52
88010196 MS	76	63	77	66	57	50
88010196 MSD	74	62	79	66	44	48
88010197	77	72	97	27	54	70
88010198	77	100	95	13 *	65	103
88010199	56	73	82	31	41	73

* Values are outside EPA QC limits.
DL Diluted out.

SEMIVOLATILE SURROGATE PERCENT RECOVERY SOIL

Job No.: AT077 Date Reported: 9-27-88

Client: ES Atlanta
Attn: Jimmy Duncan
Address: 57 Executive Park South
N. E. - Suite 590
Atlanta, Ga. 30329

Project: Volk Field AFB

Laboratory Supervisor Approval: *AWB*

Sample No.	Nitro- benzene-d5 23-120	2-Fluoro- biphenyl 30-115	4,4'-Dibromo- biphenyl 18-137	phenol-d5 24-113	2-Fluoro- phenol 25-121	2,4,6-Tribromo- phenol 19-122
Blank	60	71	99	61	44	63
88020289	48	54	77	35	16 *	27
88020289 MS	60	67	82	47	31	40
88020289 MSD	51	55	27	41	28	41
88020290	60	80	61	52	40	56
88020291	45	61	80	39	33	58
88020292	59	65	83	54	43	49
88020293	53	71	65	43	25	38
88020294	47	61	60	50	43	36
88020295	79	83	46	51	37	31
88020296	39	53	51	38	26	27
88020297	54	68	56	51	39	27
88020298	49	63	60	48	39	36
88020299	59	65	72	49	34	38
88020300	59	66	84	54	37	38

* Values are outside EPA QC limits.

88-A1-VOLK0095 1

SR-FRM04

SEMIVOLATILE SURROGATE PERCENT RECOVERY SOIL

Job No.: AT077 Date Reported: 9-27-88

Client: ES Atlanta
Attn: Jimmy Duncan
Address: 57 Executive Park South
N. E. - Suite 590
Atlanta, Ga. 30329

Laboratory Supervisor Approval:

Project: Volk Field AFB

[Signature]

Sample No.	Nitro- benzene-d5 23-120	2-Fluoro- biphenyl 30-115	4,4'-Dibromo- biphenyl 18-137	phenol-d5 24-113	2-Fluoro- phenol 25-121	2,4,6-Tribromo- phenol 19-122
88020371	41	46	49	38	31	34
88020371 MS	38	40	52	25	18 *	21
88020371 MSD	40	42	49	29	21 *	20
88020372	39	41	45	24	9 *	13 *
88020372 R	56	61	86	56	48	54
88020373	34	32	36	28	21 *	20
88020374	34	34	39	34	25	23
88020375	40	39	41	33	22 *	20
88020376	38	36	35	36	27	23
88020377	32	33	34	21 *	9 *	9 *
88020378	37	37	41	33	24 *	23
Blank	38	40	46	34	30	29

* Values are outside EPA QC limits.
R Re-extracted sample results.

Soil Surrogate Percent Recovery Summary

Client: ES Atlanta/Volk AFB
 Attn: Jimmy Duncan
 Address: Suite 590
 57 Executive Park
 Atlanta, GA 30329

Job Number: AT077
 Date Reported: 3-10-88

Sample No.	Toluene d-8 (61-117)	Bromo-fluoro benzene (74-121)	1,2-Dichloroethane d4 (70-121)	Nitrobenzene (23-120)	2-fluorobiphenyl (30-115)	4,4'Dibromobiphenyl (18-137)	Phenol d-5 (24-113)	2-fluorophenol (25-121)	2,4,6-tribromophenol (19-122)	Dibutylchloride (20-150)**
88010195	NA	NA	NA	63	59	93	55	44	66	NA
88010196	NA	NA	NA	61	58	111	49	41	62	NA
88010196MS	NA	NA	NA	63	58	90	33	46	68	NA
88010196MSD	NA	NA	NA	60	51	90	45	45	66	NA
88010197	NA	NA	NA	77	72	97	27	54	70	NA
88010198	NA	NA	NA	77	100	95	13*	65	103	NA
88010199	NA	NA	NA	56	73	82	31	41	73	NA
BLANK	NA	NA	NA	69	62	71	60	47	54	NA

* Values are outside of contract required QC limits
 ** Advisory limits only
 NA = Not applicable DL = Diluted out

Laboratory Supervisor Approval

Soil Surrogate Percent Recovery Summary

Client: ES Atlanta/Volk AFB
 Attn: Jimmy Duncan
 Address: Suite 590
 57 Executive Park
 Atlanta, GA 30329

Job Number: AT077
 Date Reported: 3-10-88

Sample No.	Toluene d-8 (61-117)	Bromo-fluoro benzene (74-121)	1,2-Dichloroethane d4 (70-121)	Nitrobenzene (23-120)	2-fluorobiphenyl (30-115)	Terphenyl d-14 (18-137)	Phenol d-5 (24-113)	2-fluorophenol (25-121)	2,4,6-tribromophenol (19-122)	Dibutylchloride (20-150)**
88010186	NA	NA	NA	62	63	94	57	46	74	NA
88010186MS	NA	NA	NA	52	50	93	45	36	66	NA
88010186MSD	NA	NA	NA	71	69	107	61	51	80	NA
88010187	NA	NA	NA	50	49	94	42	32	62	NA
88010188	NA	NA	NA	DL	DL	DL	DL	DL	DL	NA
88010189	NA	NA	NA	DL	DL	DL	DL	DL	DL	NA
88010190	NA	NA	NA	68	66	63	48	29	47	NA
88010191	NA	NA	NA	68	67	75	38	31	54	NA
88010192	NA	NA	NA	66	73	87	35	32	68	NA
88010193	NA	NA	NA	65	64	96	49	40	55	NA
88010194	NA	NA	NA	53	51	91	48	45	66	NA

* Values are outside of contract required QC limits

** Advisory limits only

NA = Not applicable DL = Diluted out

Volatile: NA out of NA ; outside of QC limits.
 Semivolatile: 0 out of 66 ; outside of QC limits.
 Pesticides: NA out of NA ; outside of QC limits.

Laboratory Supervisor Approval

[Signature]

QUALITY CONTROL RESULTS SUMMARY
ORGANOCHLORINE PESTICIDES AND PCB'S
SW METHOD 8080/608

Client: ES Atlanta/Volk field AFB
Attn: Dan Lane
Address: 57 Executive Park South
N. E. - Suite 590
Atlanta, Ga. 30329

Job No.: AT077

Lab Sample Nos: 88030537-0538, 88030540

QC Report No: PCB-W-0004-88

Spike Duplicates: Blank

Date Analyzed: 3-23-88

Spike: Blank

Laboratory Supervisor Approval:

Sample Matrix

RWB :

Water (ug/L)

Dilution Factor: NA

Compound	Blank	Duplicates			Spike Recovery				PR	CLP QC Limits	
		MS	MSD	RPD	SA	SR	SSR			RPD	REC
Aldrin	NA	NA	NA	NA	NA	NA	NA		NA	22	40-120
q-BHC (Lindane)	NA	NA	NA	NA	NA	NA	NA		NA	15	56-123
Dieldrin	NA	NA	NA	NA	NA	NA	NA		NA	18	52-126
Endrin	NA	NA	NA	NA	NA	NA	NA		NA	21	56-121
Heptachlor	NA	NA	NA	NA	NA	NA	NA		NA	20	40-131
4,4'-DDT	NA	NA	NA	NA	NA	NA	NA		NA	27	40-131
PCB-1260	ND	0.93	0.88	6	1.0	NA	0.93		93		

* Asterisked values are outside the CLP QC limits.

ND = Not Detected. NA = Not Applicable.

Relative Percent Difference (RPD) = $\frac{MS - MSD}{(MS + MSD)/2} \times 100$ MS = Spike Sample
MSD = Spike Duplicate

Percent Recovery (PR) = $\frac{SSR - SR}{SA} \times 100$ SSR = Spiked Sample Result
SR = Sample Result
SA = Spike Added (Concentration)

QUALITY CONTROL RESULTS SUMMARY
ORGANOCHLORINE PESTICIDES AND PCB'S
SW METHOD 8080/608

Client: ES Atlanta/Volk field AFB
Attn: Dan Lane
Address: 57 Executive Park South
N. E. - Suite 590
Atlanta, Ga. 30329

QC Report No: PCB-W-0006-88

Lab Sample Nos: 88030554,
88030565-88030569

Date Reported: 5-19-88

Spike Duplicates: 88030566

Date Analyzed: 3-23-88

Spike: 88030566

Laboratory Supervisor Approval:

Sample Matrix

RWB :

Water (ug/L)

Dilution Factor: NA

Compound	Blank	Duplicates			Spike Recovery				PR	CLP QC Limits	
		MS	MSD	RPD	SA	SR	SSR			RPD	REC
Aldrin	NA	NA	NA	NA	NA	ND	NA		NA	22	40-120
q-BHC (Lindane)	NA	NA	NA	NA	NA	ND	NA		NA	15	56-123
Dieldrin	NA	NA	NA	NA	NA	ND	NA		NA	18	52-126
Endrin	NA	NA	NA	NA	NA	ND	NA		NA	21	56-121
Heptachlor	NA	NA	NA	NA	NA	ND	NA		NA	20	40-131
4,4'-DDT	NA	NA	NA	NA	NA	ND	NA		NA	27	40-131
PCB-1260	ND	1.03	0.99	4	1.0	ND	1.03		103		

* Asterisked values are outside the CLP QC limits.

ND = Not Detected. NA = Not Applicable.

Relative Percent Difference (RPD) = $\frac{MS - MSD}{(MS + MSD)/2} \times 100$ MS = Spike Sample
MSD = Spike Duplicate

Percent Recovery (PR) = $\frac{SSR - SR}{SA} \times 100$ SSR = Spiked Sample Result
SR = Sample Result
SA = Spike Added (Concentration)

QUALITY CONTROL RESULTS SUMMARY
ORGANOCHLORINE PESTICIDES AND PCB'S
SW METHOD 8080/608

Client: ES Atlanta/Volk field AFB
Attn: Dan Lane
Address: 57 Executive Park South
N. E. - Suite 590
Atlanta, Ga. 30329

Job No.: AT077

Lab Sample Nos: 88030572-88030573,
88030575-88030576

QC Report No: PCB-W-0007-88

Spike Duplicates: Blank MS

Date Analyzed: 3-24-88

Spike: **Blank** **MSD**

Date Reported: 5-23-88

Laboratory Supervisor Approval:

Sample Matrix

John Burz :

Water (ug/L)

Dilution Factor: NA

Compound	Blank	Duplicates			Spike Recovery				CLP QC Limits RPD REC
		MS	MSD	RPD	SA	SR	SSR	PR	
Aldrin	ND	NA	NA	NA	NA	ND	NA	NA	22 40-120
q-BHC (Lindane)	ND	NA	NA	NA	NA	ND	NA	NA	15 56-123
Dieldrin	ND	NA	NA	NA	NA	ND	NA	NA	18 52-126
Endrin	ND	NA	NA	NA	NA	ND	NA	NA	21 56-121
Heptachlor	ND	NA	NA	NA	NA	ND	NA	NA	20 40-131
4,4'-DDT	ND	NA	NA	NA	NA	ND	NA	NA	27 40-131
PCB-1260	ND	0.99	0.87	13	1.0	ND	0.99	99	

* Asterisked values are outside the CLP QC limits.

The laboratory control sample is designated as a quality control sample for this batch. Insufficient sample available for QC purpose.

ND = Not Detected. NA = Not Applicable.

$$\text{Relative Percent Difference (RPD)} = \frac{MS - MSD}{(MS + MSD)/2} \times 100$$

MS = Spike Sample
MSD = Spike Duplicate

Percent Recovery (PR) = $\frac{SSR - SR}{SA} \times 100$

SSR = Spiked Sample Result
SR = Sample Result
SA = Spike Added (Concentration)

SSR = Spiked Sample Result

SR = Sample Result

SA = Spike Added (Concentration)

QUALITY CONTROL RESULTS SUMMARY
ORGANOCHLORINE PESTICIDES AND PCB'S
SW METHOD 8080/608

Client: ES Atlanta/Volk field AFB
Attn: Dan Lane
Address: 57 Executive Park South
N. E. - Suite 590
Atlanta, G. 30329

Job No.: AT077

Lab Sample Nos: 88030554, 88030565-0569

Spike Duplicates: 88030566

Spike: 88030566

Sample Matrix

Water (ug/L)

QC Report No: PCB-W-0009-88

Date Analyzed: 3-23-88

Date Reported: 5-23-88

Laboratory Supervisor Approval:

 M. B. Burton :

Dilution Factor: NA

Compound	Blank	Duplicates			Spike Recovery				PR	CLP QC Limits	
		MS	MSD	RPD	SA	SR	SSR			RPD	REC
Aldrin	ND	ND	ND	NC	NA	ND	NA		NA	22	40-120
q-BHC (Lindane)	ND	ND	ND	NC	NA	ND	NA		NA	15	56-123
Dieldrin	ND	ND	ND	NC	NA	ND	NA		NA	18	52-126
Endrin	ND	ND	ND	NC	NA	ND	NA		NA	21	56-121
Heptachlor	ND	ND	ND	NC	NA	ND	NA		NA	20	40-131
4,4'-DDT	ND	ND	ND	NC	NA	ND	NA		NA	27	40-131
PCB-1260	ND	1.03	0.99	4	1.0	ND	1.03		103		

* Asterisked values are outside the CLP QC limits.

ND = Not Detected. NA = Not Applicable. NC = Not Calculated.

Relative Percent Difference (RPD) = $\frac{MS - MSD}{(MS + MSD)/2} \times 100$ MS = Spike Sample
MSD = Spike Duplicate

Percent Recovery (PR) = $\frac{SSR - SR}{SA} \times 100$ SSR = Spiked Sample Result
SR = Sample Result
SA = Spike Added (Concentration)

QUALITY CONTROL RESULTS SUMMARY
ORGANOCHLORINE PESTICIDES AND PCB'S
SW METHOD 8080/608

Client: ES Atlanta/Volk field AFB
Attn: Dan Lane
Address: 57 Executive Park South
N. E. - Suite 590
Atlanta, Ga. 30329

Job No.: AT077

Lab Sample Nos: 88030537, 88030538,
88030540

QC Report No: PCB-W-0010-88

Spike Duplicates: Blank MS

Date Analyzed: 3-23-88

Date Reported: 5-23-88

Spike: Blank MSD

Laboratory Supervisor Approval:

Sample Matrix

:

Water (ug/L)

Dilution Factor: NA

Compound	Blank	Duplicates			Spike Recovery				PR	CLP QC Limits	
		MS	MSD	RPD	SA	SR	SSR			RPD	REC
Aldrin	ND	ND	ND	NC	NA	ND	NA	NA	NA	22	40-120
q-BHC (Lindane)	ND	ND	ND	NC	NA	ND	NA	NA	NA	15	56-123
Dieldrin	ND	ND	ND	NC	NA	ND	NA	NA	NA	18	52-126
Endrin	ND	ND	ND	NC	NA	ND	NA	NA	NA	21	56-121
Heptachlor	ND	ND	ND	NC	NA	ND	NA	NA	NA	20	40-131
4,4'-DDT	ND	ND	ND	NC	NA	ND	NA	NA	NA	27	40-131
PCB-1260	ND	0.93	0.88	5	1.0	ND	0.93		93		

* Asterisked values are outside the CLP QC limits.

The laboratory control sample is designated as a quality control sample for this batch. Insufficient sample available for QC purpose.

ND = Not Detected. NA = Not Applicable. NC = Not Calculated.

Relative Percent Difference (RPD) = $\frac{MS - MSD}{(MS + MSD)/2} \times 100$ MS = Spike Sample
MSD = Spike Duplicate

Percent Recovery (PR) = $\frac{SSR - SR}{SA} \times 100$ SSR = Spiked Sample Result
SR = Sample Result
SA = Spike Added (Concentration)

QUALITY CONTROL RESULTS SUMMARY
ORGANOCHLORINE PESTICIDES AND PCB'S
SW METHOD 8080/608

Client: ES Atlanta/Volk field AFB
Attn: Dan Lane
Address: 57 Executive Park South
N. E. - Suite 590
Atlanta, Ga. 30329

Job No.: AT077

Lab Sample Nos: 88030572, 880300573
88030575, 88030576

QC Report No: PCB-W-0011-88

Spike Duplicates: Blank MS

Date Analyzed: 3-24-88

Spike: Blank MSD

Date Reported: 5-23-88

Laboratory Supervisor Approval:

Sample Matrix

RWB :

Water (ug/L)

Dilution Factor: NA

Compound	Duplicates				Spike Recovery				PR	CLP QC Limits	
	Blank	MS	MSD	RPD	SA	SR	SSR			RPD	REC
Aldrin	ND	ND	ND	NC	NA	ND	NA		NA	22	40-120
q-BHC (Lindane)	ND	ND	ND	NC	NA	ND	NA		NA	15	56-123
Dieldrin	ND	ND	ND	NC	NA	ND	NA		NA	18	52-126
Endrin	ND	ND	ND	NC	NA	ND	NA		NA	21	56-121
Heptachlor	ND	ND	ND	NC	NA	ND	NA		NA	20	40-131
4,4'-DDT	ND	ND	ND	NC	NA	ND	NA		NA	27	40-131
PCB-1260	ND	0.99	0.87	13	1.0	ND	0.99		99		

* Asterisked values are outside the CLP QC limits.

The laboratory control sample is designated as a quality control sample for this batch. Insufficient sample available for QC purpose.

ND = Not Detected. NA = Not Applicable. NC = Not Calculated.

Relative Percent Difference (RPD) = $\frac{MS - MSD}{(MS + MSD)/2} \times 100$ MS = Spike Sample
MSD = Spike Duplicate

Percent Recovery (PR) = $\frac{SSR - SR}{SA} \times 100$ SSR = Spiked Sample Result
SR = Sample Result
SA = Spike Added (Concentration)

PESTICIDE SURROGATE RECOVERY
WATER

Job No.: AT077

Client: ES Atlanta
Dan Lane
57 Executive Park South
N. E. - Suite 590
Atlanta, Ga. 30329

Date Reported: 9-29-88

Laboratory Supervisor Approval:

Project: Volk Field AFB



Sample Number	S1 (DBC)%#	Sample Number	S1 (DBC)%#
Blank	98		
88030522	78		
88030527	78		
88030528	58		
88030529	75		
88030530	184*		
88030531	93		
88030531 MS	100		
88030531 MSD	99		
88030533	101		
88030536	142		
88030539	97		
Blank	125		
Blank MS	154*		
Blank MSD	181*		

ADVISORY QC LIMITS (20-150)

S1 (DBC) = Dibutylchorendate % recovery

= Column to be used to flag recovery values with an asterisk

* = Values outside of QC limits

DL = Diluted out

QUALITY CONTROL RESULTS SUMMARY
ORGANOCHLORINE PESTICIDES AND PCB'S
SW METHOD 8080/608

Client: ES Atlanta/Volk field AFB
Attn: Dan Lane
Address: 57 Executive Park South
N. E. - Suite 590
Atlanta, Ga. 30329

Job No.: AT077

Lab Sample Nos: 88020371-88020378

QC Report No: PCB-S-0002-88

Spike Duplicates: 88020371

Date Analyzed: 2-26-88

Date Reported: 5-23-88

Spike: 88020371

Laboratory Supervisor Approval:

Sample Matrix

 :
Dilution Factor: NA

Soil (ug/KG)

**Moisture: NA

Compound	Blank	Duplicates			Spike Recovery				PR	CLP QC Limits	
		MS	MSD	RPD	SA	SR	SSR			RPD	REC
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	22	40-120
q-BHC (Lindane)	NA	NA	NA	NA	NA	NA	NA	NA	NA	15	56-123
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	18	52-126
Endrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	21	56-121
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	20	40-131
4,4'-DDT	NA	NA	NA	NA	NA	NA	NA	NA	NA	27	40-131
PCB-1260	NA	39.3	29.3	29	33.3	ND	39.3	118			

* Asterisked values are outside the CLP QC limits.

** If % moisture is reported, results are presented on a dry-weight basis.

ND = Not Detected. NA = Not Applicable.

Relative Percent Difference (RPD) = $\frac{MS - MSD}{(MS + MSD)/2} \times 100$ MS = Spike Sample
MSD = Spike Duplicate

Percent Recovery (PR) = $\frac{SSR - SR}{SA} \times 100$ SSR = Spiked Sample Result
SR = Sample Result
SA = Spike Added (Concentration)

QUALITY CONTROL RESULTS SUMMARY
ORGANOCHLORINE PESTICIDES AND PCB'S
SW METHOD 8080/608

Client: ES Atlanta/Volk field AFB
Attn: Dan Lane
Address: 57 Executive Park South
N. E. - Suite 590
Atlanta, Ga. 30329

Job No.: AT077

Lab Sample Nos: 88020289-88020296

QC Report No: PCB-S-0003-88

Spike Duplicates: 88020292

Date Analyzed: 2-27-88

Date Reported: 5-23-88

Spike: 88020292

Laboratory Supervisor Approval:

Sample Matrix

 :
Dilution Factor: NA

Soil (ug/KG)

**Moisture: NA

Compound	Blank	Duplicates			Spike Recovery				PR	CLP QC Limits	
		MS	MSD	RPD	SA	SR	SSR			RPD	REC
Aldrin	NA	NA	NA	NA	NA	NA	NA		NA	22	40-120
q-BHC (Lindane)	NA	NA	NA	NA	NA	NA	NA		NA	15	56-123
Dieldrin	NA	NA	NA	NA	NA	NA	NA		NA	18	52-126
Endrin	NA	NA	NA	NA	NA	NA	NA		NA	21	56-121
Heptachlor	NA	NA	NA	NA	NA	NA	NA		NA	20	40-131
4,4'-DDT	NA	NA	NA	NA	NA	NA	NA		NA	27	40-131
PCB-1260	ND	29.3	29.6	1	33.3	ND	29.3		88		

* Asterisked values are outside the CLP QC limits.

** If % moisture is reported, results are presented on a dry-weight basis.

ND = Not Detected. NA = Not Applicable.

Relative Percent Difference (RPD) = $\frac{MS - MSD}{(MS + MSD)/2} \times 100$ MS = Spike Sample
MSD = Spike Duplicate

Percent Recovery (PR) = $\frac{SSR - SR}{SA} \times 100$ SSR = Spiked Sample Result
SR = Sample Result
SA = Spike Added (Concentration)

QUALITY CONTROL RESULTS SUMMARY
ORGANOCHLORINE PESTICIDES AND PCB'S
SW METHOD 8080/608

Client: ES Atlanta/Volk field AFB
Attn: Dan Lane
Address: 57 Executive Park South
N. E. - Suite 590
Atlanta, Ga. 30329

Job No.: AT077

Lab Sample Nos: 88020297-88020300

QC Report No: PCB-S-0004-88

Spike Duplicates: 88020297

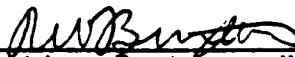
Date Analyzed: 2-27-88

Date Reported: 5-23-88

Spike: 88020297

Laboratory Supervisor Approval:

Sample Matrix


Dilution Factor: NA

Soil (ug/KG)

**Moisture: NA

Compound	Blank	Duplicates			Spike Recovery				PR	CLP RPD	QC Limits REC
		MS	MSD	RPD	SA	SR	SSR				
Aldrin	NA	NA	NA	NA	NA	NA	NA		NA	22	40-120
q-BHC (Lindane)	NA	NA	NA	NA	NA	NA	NA		NA	15	56-123
Dieldrin	NA	NA	NA	NA	NA	NA	NA		NA	18	52-126
Endrin	NA	NA	NA	NA	NA	NA	NA		NA	21	56-121
Heptachlor	NA	NA	NA	NA	NA	NA	NA		NA	20	40-131
4,4'-DDT	NA	NA	NA	NA	NA	NA	NA		NA	27	40-131
PCB-1260	ND	31.1	30.4	2.1	33.3	ND	31.1		93		

* Asterisked values are outside the CLP QC limits.

** If % moisture is reported, results are presented on a dry-weight basis.

ND = Not Detected. NA = Not Applicable.

Relative Percent Difference (RPD) = $\frac{MS - MSD}{(MS + MSD)/2} \times 100$ MS = Spike Sample
MSD = Spike Duplicate

Percent Recovery (PR) = $\frac{SSR - SR}{SA} \times 100$ SSR = Spiked Sample Result
SR = Sample Result
SA = Spike Added (Concentration)

SOIL PESTICIDE SURROGATE RECOVERY

Job No.: AT077

Client: ES Atlanta
Jimmy Duncan
57 Executive Park South
N. E. - Suite 590
Atlanta, Ga. 30329

Date Analyzed: 2-29-88
Date Reported: 9-26-88

Laboratory Supervisor Approval:

Project: Volk Field AFB

JWB

Sample Number	S1 (DBC)%#	Sample Number	S1 (DBC)%#
Blank	102	88010204	90
88010195	74	88010205	88
88010195 MS	210 *	88010206	DL
88010195 MSD	152	88010206 MS	DL
88010199	88	88010206 MSD	DL
88010199 MS	96	88010207	70
88010199 MSD	96	88010208	78
88010187	118	88010209	72
88010188	DL	88010210	86
88010189	DL	88010211	104
88010190	DL	88010212	DL
88010191	DL	Blank	60
88010192	DL	88010214	88
88010193	72	88010215	92
88010194	104	88010216	90
88010196	124	88010216 MS	76
88010197	78	88010216 MSD	64
88010198	98	88010217	68
88010186	150	88010218	68
Blank	136 *	88010219	84
Blank	98	88010220	102

ADVISORY QC LIMITS (24-154)

S1 (DBC) = Dibutylchorendate % recovery

= Column to be used to flag recovery values with an asterisk

* = Values outside of QC limits

DL = Diluted out

SOIL PESTICIDE SURROGATE RECOVERY

Job No.: AT077

Client: ES Atlanta
Jimmy Duncan
57 Executive Park South
N. E. - Suite 590
Atlanta, Ga. 30329

Date Analyzed: 2-29-88
Date Reported: 9-26-88

Laboratory Supervisor Approval:

Project: Volk Field AFB

[Signature]

Sample Number	S1 (DBC)%#	Sample Number	S1 (DBC)%#
Blank	93	88020298	64
88020289	72	88020299	79
88020290	71	88020300	87
88020291	107	Blank	76
88020292	93	88020371	64
88020292 MS	81	88020372	92
88020292 MSD	84	88020373	93
88020293	85	88020374	99
88020294	95	88020375	100
88020295	89	88020376	88
88020296	78	88020377	78
880202997	83	88020378	90
88020297 MS	72	88020371 MS	86
88020297 MSD	82	88020371 MSD	78

ADVISORY QC LIMITS (24-154)

S1 (DBC) = Dibutylchorendate % recovery

= Column to be used to flag recovery values with an asterisk

* = Values outside of QC limits

Engineering-Science
Berkeley Laboratory

QUALITY CONTROL RESULTS SUMMARY
Environmental Quality Parameters

Page 1 of 1

ES Job No.: AT077
Client: ES Atlanta/Volk Field AFB
Attn.: Dan Lane
Address: 57 Executive Park South,
N.E., Suite 590
Atlanta, GA 30329

QC Report No.: SOL-W-0005-88
Date Reported: 5/05/88
Laboratory Supervisor Approval:

Paul J. Martin

Sample Matrix:
Water (mg/L)

Dilution Factor: NA
QC Report for Sample Nos.:
88030536-0540

F-74

Analytical Parameter	Laboratory Duplicates	Sample Nos. Spike	Date Anal	Anal Method	Blank	Duplicate		RPD	Spike Recovery		Notes
						C1	C2		SA	SR	
TDS	88030536	NA	3/10/88	E160.1	<10	33.0	32.0	3	NA	NA	NA
NA - Not applicable											
NC - Not calculated											

$$\text{Relative Percent Difference (RPD)} = \frac{C1 - C2}{(C1 + C2)/2} \times 100$$

C1 = Concentration One
C2 = Concentration Two

$$\text{Percent Recovery (PR)} = \frac{\text{SSR} - \text{SR}}{\text{SA}} \times 100$$

SSR = Spiked Sample Result
SR = Sample Result
SA = Spike Added (Concentration)

Engineering-Science
Berkeley Laboratory

QUALITY CONTROL RESULTS SUMMARY
Environmental Quality Parameters

Page 1 of 1

ES Job No.: AT077
Client: ES Atlanta/Volk Field AFB
Attn.: Dan Lane
Address: 57 Executive Park South,
N.E., Suite 590
Atlanta, GA 30329

QC Report No.: SOL-W-0006-88
Date Reported: 5/05/88
Laboratory Supervisor Approval:

San J. Mc...

Sample Matrix:
Water (mg/L)

Dilution Factor: NA
QC Report for Sample Nos.:
88030522, 88030527-0533

F-75

Analytical Parameter	Laboratory Duplicates	Sample Nos. Spike	Date Anal	Anal Method	Blank	Duplicate		Spike Recovery			Notes	
						C1	C2	RPD	SA	SR		SSR
TDS	88030522	NA	3/08/88	E160.1	<10	64.0	54.0	17	NA	NA	NA	NA

NA = Not applicable
NC = Not calculated

$$\text{Relative Percent Difference (RPD)} = \frac{C1 - C2}{(C1 + C2)/2} \times 100 \quad \begin{matrix} C1 = \text{Concentration One} \\ C2 = \text{Concentration Two} \end{matrix}$$

$$\text{Percent Recovery (PR)} = \frac{SSR - SR}{SA} \times 100 \quad \begin{matrix} SSR = \text{Spiked Sample Result} \\ SR = \text{Sample Result} \\ SA = \text{Spike Added (Concentration)} \end{matrix}$$

181.2.4

Engineering-Science
Berkeley Laboratory

QUALITY CONTROL RESULTS SUMMARY
Environmental Quality Parameters

Page 1 of 1

ES Job No.: AT077
Client: ES Atlanta/Volk Field AFB
Attn.: Dan Lane
Address: 57 Executive Park South,
N.E., Suite 590
Atlanta, GA 30329

QC Report No.: SOL-W-0007-88
Date Reported: 5/05/88
Laboratory Supervisor Approval:

David J. Minter

Sample Matrix:
Water (mg/L)

Dilution Factor: NA
QC Report for Sample Nos.:
88030551-0557, 88030562

F-76

Analytical Parameter	Laboratory Duplicates	Sample Nos. Spike	Date Anal	Blank Method	Duplicate		Spike Recovery			Notes		
					C1	C2	RPD	SA	SR		SSR	PR
TDS	88030551	NA	3/10/88	E160.1	<10	48.0	50.0	4	NA	NA	NA	NA
NA - Not applicable												
NC - Not calculated												

$$\text{Relative Percent Difference (RPD)} = \frac{C1 - C2}{(C1 + C2)/2} \times 100$$

C1 = Concentration One
C2 = Concentration Two

$$\text{Percent Recovery (PR)} = \frac{\text{SSR} - \text{SR}}{\text{SA}} \times 100$$

SSR = Spiked Sample Result
SR = Sample Result
SA = Spike Added (Concentration)

Engineering-Science
Berkeley Laboratory

QUALITY CONTROL RESULTS SUMMARY
Environmental Quality Parameters

Page 1 of 1

ES Job No.: AT077
Client: ES Atlanta/Volk Field AFB
Attn.: Dan Lane
Address: 57 Executive Park South,
N.E., Suite 590
Atlanta, GA 30329

QC Report No.: SOL-W-0008-88
Date Reported: 5/05/88
Laboratory Supervisor Approval:

John G. Minkin

Sample Matrix:
Water (mg/L)

Dilution Factor: NA
*QC Report for Sample Nos.:
88030565-0576

Analytical Parameter	Laboratory Duplicates	Sample Nos. Spike	Date Anal	Blank Anal Method	C1	Duplicate C2	RPD	SA	Spike Recovery SR	SSR	PR	Notes
TDS	88030575	NA	3/15/88	E160.1	24	131	109	18	NA	NA	NA	NA

* All samples are blank corrected.

NA = Not applicable

NC = Not calculated

$$\text{Relative Percent Difference (RPD)} = \frac{C1 - C2}{(C1 + C2)/2} \times 100$$

C1 = Concentration One
C2 = Concentration Two

$$\text{Percent Recovery (PR)} = \frac{SSR - SR}{SA} \times 100$$

SSR = Spiked Sample Result
SR = Sample Result
SA = Spike Added (Concentration)

Engineering-Science
Berkeley Laboratory

QUALITY CONTROL RESULTS SUMMARY
Metals

ES Job No.: AT077
Client: ES Atlanta/VOLK Field AFB
Attn.: Jimmy Duncan
Address: 57 Executive Park - Suite 590
Atlanta, GA 30329

QC Report No.: ICP-W-0036-88
Date Reported: 5-15-88
Laboratory Supervisor Approval:

Leif J. Dickinson

Sample Matrix:
Water (mg/L)

Dilution Factor: NA

QC Report for Sample Nos.: 88030522, 88030527-0531, 88030533, 88030536, 88030539

Analytical Parameter	Laboratory Duplicates	Sample Nos. Spike	Date Anal	Method Anal	Blank	C1	C2	Duplicate RPD	SA	SR	Spike Recovery	Notes
Antimony	88030522	88030522	5-02-88	E200.7	<0.060	<0.060	<0.060	NC	0.500	<0.060	0.489	98
Beryllium	88030522	88030522	4-25-88	E200.7	<0.005	<0.001	<0.001	NC	0.050	<0.001	0.050	100
Cadmium	88030522	88030522	4-25-88	E200.7	<0.010	<0.010	<0.010	NC	0.050	<0.010	0.054	108
Chromium	88030522	88030522	4-25-88	E200.7	<0.050	0.0108	0.0118	10	0.200	0.0108	0.222	106
Copper	88030522	88030522	4-25-88	E200.7	<0.025	0.0148	0.0188	25	0.250	0.0148	0.268	102
Nickel	88030522	88030522	4-25-88	E200.7	<0.040	<0.010	<0.010	NC	0.400	<0.010	0.402	101
Silver	88030522	88030522	5-03-88	E200.7	<0.050	<0.010	<0.010	NC	0.050	<0.010	0.036	72N A
Thallium	88030522	88030522	4-25-88	E200.7	<0.100	0.104	<0.100	NC	2.50	0.104	2.73	105
Vanadium	88030522	88030522	4-25-88	E200.7	<0.100	<0.100	<0.100	NC	0.500	<0.100	0.539	108
Zinc	88030522	88030522	5-02-88	E200.7	<0.020	0.020	0.016	NC	0.200	0.020	0.237	109

NC = Not calculated
NA = Not applicable

N = See attached legend
B = See attached legend
A = See Case Narrative

Relative Percent Difference (RPD) = $\frac{C1 - C2}{(C1 + C2)/2} \times 100$
C1 = Concentration One
C2 = Concentration Two

Percent Recovery (PR) = $\frac{SSR - SR}{SA} \times 100$
SSR = Spiked Sample Result
SR = Sample Result
SA = Spike Added (Concentration)

181.24.2

CASE NARRATIVE
Quality Control Summary Report
QC Report No.: ICP-W-0036-88

This group of samples was received at Berkeley Laboratory. It consisted of eight samples to be analyzed for metals.

Silver spike recovery for this sample does not fall within the normal recovery range; however, this is attributed to the low solubility of silver in this preparation matrix.

Where possible, sample results are provided as estimated values below the reporting limit, but above the detection limit, for the parameter of interest. While this is more informative, it affects the application of quality control limits.

The QC sample for the analyte(s) listed was spiked at a concentration at or below the reporting limit due to sample preparation being completed prior to establishment of this limit: Ag.

LEGEND FOR RESULT QUALIFIERS

- B Reported value is less than Reporting limit
but greater than the MDL.
- N Spiked sample recovery not within control limits.
- S Reported value was determined by the Method of
Standard Additions.
- * Duplicate analysis not within control limits.
- J Sample value is corrected by the analyte
concentration found in the blank.
- W Post digestion spike for Furnace AA analysis
out of control limits (85-115%), while sample
absorbance is less than 50% of spike absorbance.

Engineering-Science
Berkeley Laboratory

QUALITY CONTROL RESULTS SUMMARY
Metals

ES Job No.: AT077
Client: ES Atlanta/VOLK Field AFB
Attn.: Jimmy Duncan
Address: 57 Executive Park - Suite 590
Atlanta, GA 30329

QC Report No.: ICP-W-0037-88
Date Reported: 5-13-88
Laboratory Supervisor Approval:

John L. J. Miteka

Sample Matrix:
Water (mg/L)

Dilution Factor: NA

QC Report for Sample Nos.: 88030551-0553, 88030556-0557, 88030562, 88030574

Analytical Parameter	Laboratory Duplicates	Sample Nos. Spike	Date Anal	Anal Method	Blank	C1	Duplicate C2	RPD	SA	Spike Recovery SR	SSR	PR	Notes
Antimony	88030574	88030574	5-02-88	E200.7	<0.060	<0.060	<0.060	NC	0.500	<0.060	0.496	99	
Beryllium	88030574	88030574	4-25-88	E200.7	<0.005	<0.001	<0.001	NC	0.050	<0.001	0.047	94	
Cadmium	88030574	88030574	4-25-88	E200.7	<0.010	<0.010	<0.010	NC	0.050	<0.010	0.049	98	
Chromium	88030574	88030574	4-25-88	E200.7	<0.050	<0.010	<0.010	NC	0.200	<0.010	0.187	93	
Copper	88030574	88030574	4-25-88	E200.7	<0.025	<0.010	<0.010	NC	0.250	<0.010	0.250	100	
Nickel	88030574	88030574	4-25-88	E200.7	<0.040	<0.010	<0.010	NC	0.400	<0.010	0.360	90	
Silver	88030574	88030574	5-05-88	E200.7	<0.050	<0.010	<0.010	NC	0.050	<0.010	0.030	60N	A
Thallium	88030574	88030574	4-25-88	E200.7	<0.100	<0.100	<0.100	NC	2.50	<0.100	2.53	101	
Vanadium	88030574	88030574	4-25-88	E200.7	<0.100	<0.100	<0.100	NC	0.500	<0.100	0.481	96	
Zinc	88030574	88030574	5-02-88	E200.7	<0.020	<0.010	<0.010	NC	0.200	<0.010	0.212	106	

NC = Not calculated
NA = Not applicable

N = See attached legend
B = See attached legend

A = See Case Narrative

$$\text{Relative Percent Difference (RPD)} = \frac{C1 - C2}{(C1 + C2)/2} \times 100$$

C1 = Concentration One
C2 = Concentration Two

$$\text{Percent Recovery (PR)} = \frac{\text{SSR} - \text{SR}}{\text{SA}} \times 100$$

SSR = Spiked Sample Result
SR = Sample Result
SA = Spike Added (Concentration)

181.24.1

CASE NARRATIVE
Quality Control Summary Report
QC Report No: ICP-W-0037-88

This group of samples was received at Berkeley Laboratory. It consisted of seven samples to be analyzed for metals.

Silver spike recovery for this sample does not fall within the normal recovery range; however, this is attributed to the low solubility of silver in this preparation matrix.

Where possible, sample results are provided as estimated values below the reporting limit, but above the detection limit, for the parameter of interest. While this is more informative, it affects the application of quality control limits.

The QC sample for the analyte(s) listed was spiked at a concentration at or below the reporting limit due to sample preparation being completed prior to establishment of this limit: Ag.

LEGEND FOR RESULT QUALIFIERS

- B Reported value is less than Reporting limit
 but greater than the MDL.
- N Spiked sample recovery not within control limits.
- S Reported value was determined by the Method of
 Standard Additions.
- * Duplicate analysis not within control limits.
- J Sample value is corrected by the analyte
 concentration found in the blank.
- W Post digestion spike for Furnace AA analysis
 out of control limits (85-115%), while sample
 absorbance is less than 50% of spike absorbance.

Engineering-Science
Berkeley Laboratory

QUALITY CONTROL RESULTS SUMMARY
Metals

ES Job No.: AT077
Client: ES Atlanta/Volk Field AFB
Attn: Dan Lane
Address: 57 Executive Park South,
N.E., Suite 590
Atlanta, GA 30329

QC Report No.: AAP-W-0014-88
Date Reported: 5/16/88
Laboratory Supervisor Approval:

Robert J. Minter

Dilution Factor: NA

Sample Matrix:
Water (mg/L)

QC Report for Sample Nos.:
88030522, 88030527-0531,
88030551-0553

Metal	Laboratory Sample Nos.		Date	Anal	Blank	Duplicate			Spike Recovery			Notes
	Duplicates	Spike				Anal	Method	C1	C2	RPD	SA	
Arsenic	88030409	88030409	4/29/88	206.2	<0.005	<0.005W	<0.005W	NC	0.020	<0.005W	0.035	175
	88030409	88030409	5/05/88	2239.2	<0.005	<0.005	<0.005	NC	0.010	<0.005	0.019	190
Lead	88030409	88030409	4/27/88	270.2	<0.005	<0.005W	<0.005W	NC	0.020	<0.005W	0.027	135
	88030409	88030409	4/27/88	270.2	<0.005	<0.005W	<0.005W	NC	0.020	<0.005W	0.027	135

NA = Not applicable

NC = Not calculated

W = See attached legend

$$\text{Relative Percent Difference (RPD)} = \frac{\text{C1} - \text{C2}}{(\text{C1} + \text{C2})/2} \times 100$$

C1 = Concentration One
C2 = Concentration Two

$$\text{Percent Recovery (PR)} = \frac{\text{SSR} - \text{SR}}{\text{SA}} \times 100$$

SSR = Spiked Sample Result
SR = Sample Result
SA = Spike Added (Concentration)

181.25.2

LEGEND FOR RESULT QUALIFIERS

- B Reported value is less than Reporting limit
but greater than the MDL.
- N Spiked sample recovery not within control limits.
- S Reported value was determined by the Method of
Standard Additions.
- * Duplicate analysis not within control limits.
- J Sample value is corrected by the analyte
concentration found in the blank.
- W Post digestion spike for Furnace AA analysis
out of control limits (85-115%), while sample
absorbance is less than 50% of spike absorbance.

QUALITY CONTROL RESULTS METALS

ES Job No.: AT077
 Client: ES Atlanta/Volk field AFB
 Attn: Dan Lane
 Address: 57 Executive Park South
 N. E. - Suite 590
 Atlanta, Ga. 30329

QC Report No.: AAF-S-0004-88
 Date Reported: 5-19-88
 Laboratory Supervisor Approval:

David J. Mitchell

Sample Matrix:
 Soil (mg/KG)

Dilution Factor: NA
 Moisture: NA

QC Report for Sample Nos.: 88010207-88010212, 88010214-88010216

Analyte Metal	Laboratory Duplicates	Sample Nos. Spike	Date Anal	Anal Method	Blank	Duplicate		Spike Recovery		Notes	
						C1	C2	RPD	SA		SR
Lead	88010207	88010207	5-11-88	SW3050	<0.500	1.80	1.80	0	5.00	1.80	5.80 80

F-86

NA = Not applicable
 NC = Not calculated

$$\text{Relative Percent Difference (RPD)} = \frac{C1 - C2}{(C1 + C2)/2} \times 100$$

C1 = Concentration One
 C2 = Concentration Two

$$\text{Percent Recovery (PR)} = \frac{SSR - SR}{SA} \times 100$$

SSR = Spiked Sample Result
 SR = Sample Result
 SA = Spike Added (Concentration)

QUALITY CONTROL RESULTS METALS

ES Job No.: AT077
 Client: ES Atlanta/Volk field AFB
 Attn: Dan Lane
 Address: 57 Executive Park South
 N. E. - Suite 590
 Atlanta, Ga. 30329

QC Report No.: AAF-S-0005-88
 Date Reported: 5-18-88
 Laboratory Supervisor Approval:

[Signature]

Sample Matrix:
 Soil (mg/KG)

Dilution Factor: NA
 Moisture: NA

QC Report for Sample Nos.: 88020294-88020300, 88020371-88020372

Analyte Metal	Laboratory Duplicates	Sample Nos. Spike	Date Anal	Anal Method	Blank	Duplicate		Spike Recovery			Notes
						C1	C2	RPD	SA	SR	
Lead	88020294	88020294	5-11-88	SW3050	<0.500	0.600	0.700	NC	5.00	0.600	4.8 84 A

A = See case narrative attached
 NA = Not applicable
 NC = Not calculated

$$\text{Relative Percent Difference (RPD)} = \frac{C1 - C2}{(C1 + C2)/2} \times 100$$

C1 = Concentration One
 C2 = Concentration Two

$$\text{Percent Recovery (PR)} = \frac{SSR - SR}{SA} \times 100$$

SSR = Spiked Sample Result
 SR = Sample Result
 SA = Spike Added (Concentration)

88-A1-VOLK0058 1

QC-FRM04

CASE NARRATIVE
QUALITY CONTROL RESULTS SUMMARY
Samples No.: 88020294-88020300, 88020371-88020372
QC Report Number: AAF-S-0005-88

The Relative Percent Difference is not calculated since the sample values are less than five times the detection limit. Acceptable RPD in this case is defined as duplicate values within one detection limit of each other.

QUALITY CONTROL RESULTS METALS

ES Job No.:
Client:
Attn:
Address:

AT077
ES Atlanta/Volk field AFB
Dan Lane
57 Executive Park South
N. E. - Suite 590
Atlanta, Ga. 30329

QC Report No.: AAF-S-0006-88
Date Reported: 5-18-88
Laboratory Supervisor Approval:

[Signature]

Sample Matrix:
Soil (mg/KG)

Dilution Factor: NA
Moisture: NA

QC Report for Sample Nos.: 88020373-88020378

Analyte Metal	Laboratory Duplicates	Sample Nos. Spike	Date Anal	Anal Method	Blank	Duplicate		Spike Recovery		Notes
						C1	C2	RPD	SA	

Lead	88020373	88020373	5-11-88	SW3050	<0.500	<0.500	<0.500	NC	5.00	<0.500	4.60	92
------	----------	----------	---------	--------	--------	--------	--------	----	------	--------	------	----

NA = Not applicable
NC = Not calculated

$$\text{Relative Percent Difference (RPD)} = \frac{C1 - C2}{(C1 + C2)/2} \times 100$$

C1 = Concentration One
C2 = Concentration Two

$$\text{Percent Recovery (PR)} = \frac{SSR - SR}{SA} \times 100$$

SSR = Spiked Sample Result
SR = Sample Result
SA = Spike Added (Concentration)

88-A1-VOLK0061 1

QC-FRM04

QUALITY CONTROL RESULTS METALS

ES Job No.: AT077
 Client: ES Atlanta/Volk field AFB
 Attn: Dan Lane
 Address: 57 Executive Park South
 N. E. - Suite 590
 Atlanta, Ga. 30329

QC Report No.: AAF-S-0007-88
 Date Reported: 5-17-88
 Laboratory Supervisor Approval:

James J. M. T. e.

Sample Matrix:
 Soil (mg/KG)

Dilution Factor: 10
 Moisture: N/A

QC Report for Sample Nos: 88010189, 88010195-88010199, 88010204-88010206

Analyte Metal	Laboratory Duplicates	Sample Nos. Spike	Date Anal	Anal Method	Blank	Duplicate		Spike Recovery		Notes			
						C1	C2	RPD	SA		SR	PR	
Lead	88010189	88010189	5-11-88	SW3050	<0.500	74.0	113	41*	50.0	74.0	75.0	2	A

** If % moisture is reported, results are presented on a dry-weight basis.
 * See attached legend
 A See Case Narrative attached

$$\text{Relative Percent Difference (RPD)} = \frac{C1 - C2}{(C1 + C2)/2} \times 100$$

C1 = Concentration One
 C2 = Concentration Two

$$\text{Percent Recovery (PR)} = \frac{SSR - SR}{SA} \times 100$$

SSR = Spiked Sample Result
 SR = Sample Result
 SA = Spike Added (Concentration)

88-A1-VOLK0051 1

QC-FRM04

CASE NARRATIVE
QUALITY CONTROL RESULTS SUMMARY
Samples No.: 88010189, 88010195-88010199,
88010204-88010206
Work Order Number AAF-S-0007-88

The value reported for the sample 88010189 is different than shown on the QC Results Summary.

The reported value for the sample used for QC was achieved by the Method of Standard Additions (MSA). This requirement for MSA was a result of spike recoveries outside acceptable limits for the predigestion sample spike and post digestion analytical spike on the sample.

LEGEND FOR RESULT QUALIFIERS

- B Reported value is less than Reporting limit
 but greater than the MDL.
- N Spiked sample recovery not within control limits.
- S Reported value was determined by the Method of
 Standard Additions.
- * Duplicate analysis not within control limits.
- J Sample value is corrected by the analyte
 concentration found in the blank.
- W Post digestion spike for Furnace AA analysis
 out of control limits (95-115%), while sample
 absorbance is less than 50% of spike absorbance.

QUALITY CONTROL RESULTS METALS

ES Job No.: AT077
 Client: ES Atlanta/Volk field AFB
 Attn: Dan Lane
 Address: 57 Executive Park South
 N. E. - Suite 590
 Atlanta, Ga. 30329

QC Report No.: AAF-S-0008-88
 Date Reported: 5-17-88
 Laboratory Supervisor Approval:

[Signature]

Sample Matrix:
 Soil (mg/KG)

Dilution Factor: 10
 Moisture: N/A

QC Report for Sample Nos: 88010217-88010220, 88020289-88020293

Analyte Metal	Laboratory Duplicates	Sample Nos. Spike	Date Anal	Anal Method	Blank	Duplicate		Spike Recovery		Notes		
						C1	C2	RPD	SA		SR	PR
Lead	88010217	88010217	5-11-88	SW3050	<0.500	22.0	13.0	51*	40	22.0	79.0	142 A

* If % moisture is reported, results are presented on a dry-weight basis.
 * See legend attached
 A See Case Narrative attached

$$\text{Relative Percent Difference (RPD)} = \frac{C1 - C2}{(C1 + C2)/2} \times 100$$

C1 = Concentration One
 C2 = Concentration Two

$$\text{Percent Recovery (PR)} = \frac{SSR - SR}{SA} \times 100$$

SSR = Spiked Sample Result
 SR = Sample Result
 SA = Spike Added (Concentration)

88-A1-VOLK0048 1

QC-FRM04

LEGEND FOR RESULT QUALIFIERS

- B Reported value is less than Reporting limit
 but greater than the MDL.
- N Spiked sample recovery not within control limits.
- S Reported value was determined by the Method of
 Standard Additions.
- * Duplicate analysis not within control limits.
- J Sample value is corrected by the analyte
 concentration found in the blank.
- W Post digestion spike for Furnace AA analysis
 out of control limits (85-115%), while sample
 absorbance is less than 50% of spike absorbance.

CASE NARRATIVE
QUALITY CONTROL RESULTS SUMMARY
Samples No.: 88010217-88010220, 88020289-88020293
Work Order Number AAF-S-0008-88

The value reported for the sample 88010217 is different than shown on the QC Results Summary.

The reported value for the sample used for QC was achieved by the Method of Standard Additions (MSA). This requirement for MSA was a result of spike recoveries outside acceptable limits for the predigestion sample spike and post digestion analytical spike on the sample.

Engineering-Science
Berkeley Laboratory

QUALITY CONTROL RESULTS SUMMARY
Metals

ES Job No.: AT077
Client: ES Atlanta/Volk Field AFB
Attn: Dan Lane
Address: 57 Executive Park South,
N.E., Suite 590
Atlanta, GA 30329

QC Report No.: CVM-W-0004-88
Date Reported: 5/16/88
Laboratory Supervisor Approval:

Stanley J. Smith

Sample Matrix:
Water (mg/L)

Dilution Factor: NA

QC Report for Sample Nos.:
88030522, 88030527-0531,
88030533, 88030536, 88030539,
88030574

Metal	Laboratory Sample Nos.		Date	Anal	Blank	Duplicate			Spike Recovery			Notes
	Duplicates	Spike				C1	C2	RPD	SA	SR	PR	
Mercury	88030529	88030529	3/28/88	E245.1	<0.0002	<0.0002	<0.0002	NC	0.002	<0.0002	0.002	100

NA = Not applicable
NC = Not calculated

$$\text{Relative Percent Difference (RPD)} = \frac{C1 - C2}{(C1 + C2)/2} \times 100 \quad \begin{array}{l} C1 = \text{Concentration One} \\ C2 = \text{Concentration Two} \end{array}$$

$$\text{Percent Recovery (PR)} = \frac{SSR - SR}{SA} \times 100 \quad \begin{array}{l} SSR = \text{Spiked Sample Result} \\ SR = \text{Sample Result} \\ SA = \text{Spike Added (Concentration)} \end{array}$$

181.25.4

Engineering-Science
Berkeley Laboratory

QUALITY CONTROL RESULTS SUMMARY
Metals

ES Job No.: AT077
Client: ES Atlanta/Volk Field AFB
Attn: Dan Lane
Address: 57 Executive Park South,
N.E., Suite 590
Atlanta, GA 30329

Sample Matrix:
Water (mg/L)

QC Report No.: CVM-W-0005-88
Date Reported: 5/16/88
Laboratory Supervisor Approval:

John L. J. M. J.

Dilution Factor: NA

QC Report for Sample Nos.:
88030551-0553, 88030556-0557,
88030562

F-97

Metal	Laboratory Sample Nos.		Date	Anal	Blank	Duplicate			Spike Recovery			Notes
	Duplicates	Spike				C1	C2	RPD	SA	SR	SSR	
Mercury	88030562	88030562	4/05/88	E245.1	<0.0002	<0.0002	<0.0002	NC	0.002	<0.0002	0.00194	97
NA - Not applicable												
NC - Not calculated												

$$\text{Relative Percent Difference (RPD)} = \frac{C1 - C2}{(C1 + C2)/2} \times 100$$

C1 = Concentration One
C2 = Concentration Two

$$\text{Percent Recovery (PR)} = \frac{\text{SSR} - \text{SR}}{\text{SA}} \times 100$$

SSR = Spiked Sample Result
SR = Sample Result
SA = Spike Added (Concentration)

181.25.3

QUALITY CONTROL RESULTS
ENVIRONMENTAL QUALITY PARAMETERS

ES Job No.: AT077
Client: ES Atlanta/Volk field AFB
Attn: Dan Lane
Address: 57 Executive Park South
N. E. - Suite 590
Atlanta, Ga. 30329

QC Report No.: SOL-S-0002-88
Date Reported: 5-17-88
Laboratory Supervisor Approval:

[Signature]

Sample Matrix:
Soil

QC Report for Sample Nos: 88020289-88020300

Analyte	Laboratory	Sample Nos.	Date	Anal	Blank	C1	Duplicate	Spike Recovery	Notes
Metal	Duplicates	Spike	Anal	Method			C2	SA SR SSR	PR
Moisture	88020300	NA	4-27-88	D2216	NA	1.0	1.0	NA NA NA	NA A

A = See Case Narrative attached
NA = Not applicable
NC = Not calculated

$$\text{Relative Percent Difference (RPD)} = \frac{C1 - C2}{(C1 + C2)/2} \times 100$$

C1 = Concentration One
C2 = Concentration Two

$$\text{Percent Recovery (PR)} = \frac{SSR - SR}{SA} \times 100$$

SSR = Spiked Sample Result
SR = Sample Result
SA = Spike Added (Concentration)

CASE NARRATIVE
QUALITY CONTROL RESULTS SUMMARY
Samples No.: 88020289-88020300
Work Order Number SOL-S-0002-88

The Relative Percent Difference is not calculated since the sample values are less than five times the detection limit. Acceptable RPD in this case is defined as duplicate values within one detection limit of each other.

QUALITY CONTROL RESULTS ENVIRONMENTAL QUALITY PARAMETERS

ES Job No.: AT077
 Client: ES Atlanta/Volk field AFB
 Attn: Dan Lane
 Address: 57 Executive Park South
 N. E. - Suite 590
 Atlanta, Ga. 30329

QC Report No.: SOL-S-0003-88
 Date Reported: 5-17-88
 Laboratory Supervisor Approval:

[Signature]

Sample Matrix:
 Soil

QC Report for Sample Nos: 88010204-88010212

Analyte Metal	Laboratory Duplicates	Sample Nos. Spike	Date Anal	Anal Method	Blank	Duplicate		Spike Recovery			Notes
						C1	C2	RPD	SA	SR	PR
Moisture	88010212	NA	4-27-88	D2216	NA	5.2	5.0	4	NA	NA	NA

NA = Not applicable
 NC = Not calculated

$$\text{Relative Percent Difference (RPD)} = \frac{C1 - C2}{(C1 + C2)/2} \times 100$$

C1 = Concentration One
 C2 = Concentration Two

$$\text{Percent Recovery (PR)} = \frac{SSR - SR}{SA} \times 100$$

SSR = Spiked Sample Result
 SR = Sample Result
 SA = Spike Added (Concentration)

88-A1-VOLK0047 1

QC-FRM05

QUALITY CONTROL RESULTS ENVIRONMENTAL QUALITY PARAMETERS

ES Job No.: AT077
 Client: ES Atlanta/Volk field AFB
 Attn: Dan Lane
 Address: 57 Executive Park South
 N. E. - Suite 590
 Atlanta, Ga. 30329

QC Report No.: SOL-S-0004-88
 Date Reported: 5-17-88
 Laboratory Supervisor Approval:

[Signature]

Sample Matrix:
 Soil %

QC Report for Sample Nos: 88010186-88010199

Analyte	Laboratory	Sample Nos.	Date	Anal	Blank	C1	Duplicate	C2	RPD	SA	SR	SSR	PR	Notes
Metal	Duplicates	Spike	Anal	Method										
Moisture	88010199	NA	4-26-88	D2216	NA	2.1	2.1	2.1	NC	NA	NA	NA	NA	A

A = See Case Narrative attached
 NA = Not applicable
 NC = Not calculated

$$\text{Relative Percent Difference (RPD)} = \frac{C1 - C2}{(C1 + C2)/2} \times 100$$

$$\text{Percent Recovery (PR)} = \frac{SSR - SR}{SA} \times 100$$

C1 = Concentration One
 C2 = Concentration Two
 SSR = Spiked Sample Result
 SR = Sample Result
 SA = Spike Added (Concentration)

88-A1-VOLK0045 1

QC-FRM05

CASE NARRATIVE
QUALITY CONTROL RESULTS SUMMARY
Samples No.: 88010186-88010199
Work Order Number SOL-S-0004-88

The Relative Percent Difference is not calculated since the sample values are less than five times the detection limit. Acceptable RPD in this case is defined as duplicate values within one detection limit of each other.

QUALITY CONTROL RESULTS ENVIRONMENTAL QUALITY PARAMETERS

ES Job No.: At077

Client: ES Atlanta/Volk field AFB

Attn: Dan Lane

Address: 57Executive Park South

N E. - Suite 590

Atlanta, Ga. 30329

QC Report No.: SOL-S-0005-88

Date Reported: 5-17-88

Laboratory Supervisor Approval:

[Signature]

Sample Matrix:
Soil

QC Report for Sample Nos: 88010214-88010220

Analyte	Laboratory Duplicates	Sample Nos. Spike	Date Anal	Anal Method	Blank	C1	Duplicate C2	RPD	Spike Recovery SA	SSR	PR	Notes
Moisture	88010220	NA	4-26-88	D2216	NA	3.8	3.5	NC	NA	NA	NA	A

A = See Case Narrative attached

NA = Not applicable

NC = Not calculated

$$\text{Relative Percent Difference (RPD)} = \frac{C1 - C2}{(C1 + C2)/2} \times 100$$

C1 = Concentration One
C2 = Concentration Two

$$\text{Percent Recovery (PR)} = \frac{SSR - SR}{SA} \times 100$$

SSR = Spiked Sample Result
SR = Sample Result
SA = Spike Added (Concentration)

88-A1-VOLK0041 1

QC-FRM05

CASE NARRATIVE
QUALITY CONTROL RESULTS SUMMARY
Samples No.: 88010214-88010220
Work Order Number SOL-S-0005-88

The Relative Percent Difference is not calculated since the sample values are less than five times the detection limit. Acceptable RPD in this case is defined as duplicate values within one detection limit of each other.

QUALITY CONTROL RESULTS
ENVIRONMENTAL QUALITY PARAMETERS

ES Job No.: AT077
 Client: ES Atlanta/Volk field AFB
 Attn: Dan Lane
 Address: 57 Executive Park South
 N. E. - Suite 590
 Atlanta, Ga. 30329

QC Report No.: SOL-S-0006-88
 Date Reported: 5-17-88
 Laboratory Supervisor Approval:

[Signature]

Sample Matrix:
 Soil %

QC Report for Sample Nos: 88020371-88020378

Analyte Metal	Laboratory Duplicates	Sample Nos. Spike	Date Anal	Anal Method	Blank	C1	Duplicate C2	RPD	SA	SR	SSR	PR	Notes
Moisture	88020378	NA	4-26-88	D2216	NA	3.4	4.1	NC	NA	NA	NA	NA	A

A = See Case Narrative attached.
 NA = Not applicable
 NC = Not calculated

$$\text{Relative Percent Difference (RPD)} = \frac{C1 - C2}{(C1 + C2)/2} \times 100$$

C1 = Concentration One
C2 = Concentration Two

$$\text{Percent Recovery (PR)} = \frac{\text{SSR} - \text{SR}}{\text{SA}} \times 100$$

SSR = Spiked Sample Result
 SR = Sample Result
 SA = Spike Added (Concentration)

88-A1-VOLK0039 1

QC-FRM05

CASE NARRATIVE
QUALITY CONTROL RESULTS SUMMARY
Samples No.: 88020371-88020378
Work Order Number SOL-S-0006-88

The Relative Percent Difference is not calculated since the sample values are less than five times the detection limit. Acceptable RPD in this case is defined as duplicate values within one detection limit of each other.